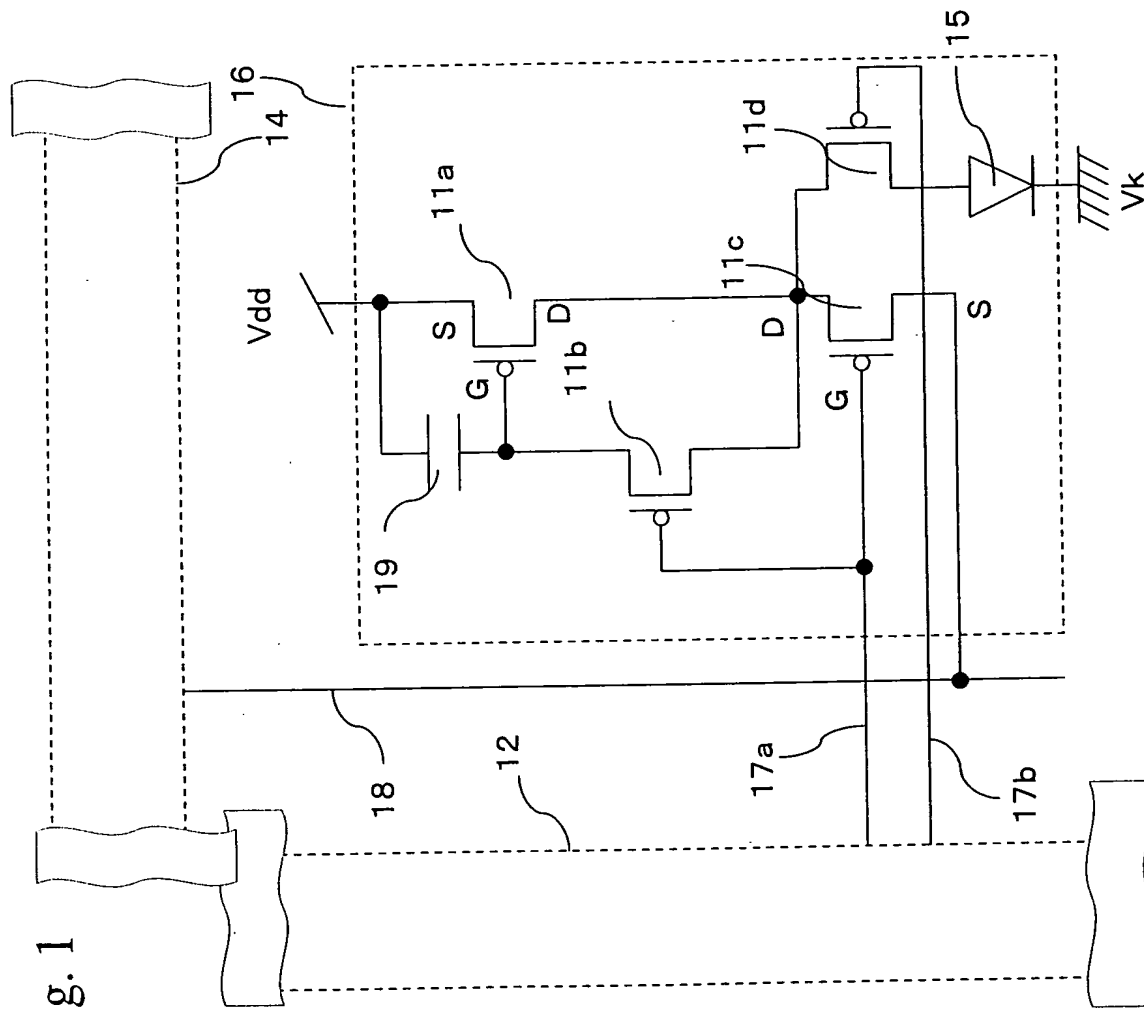


Fig. 1



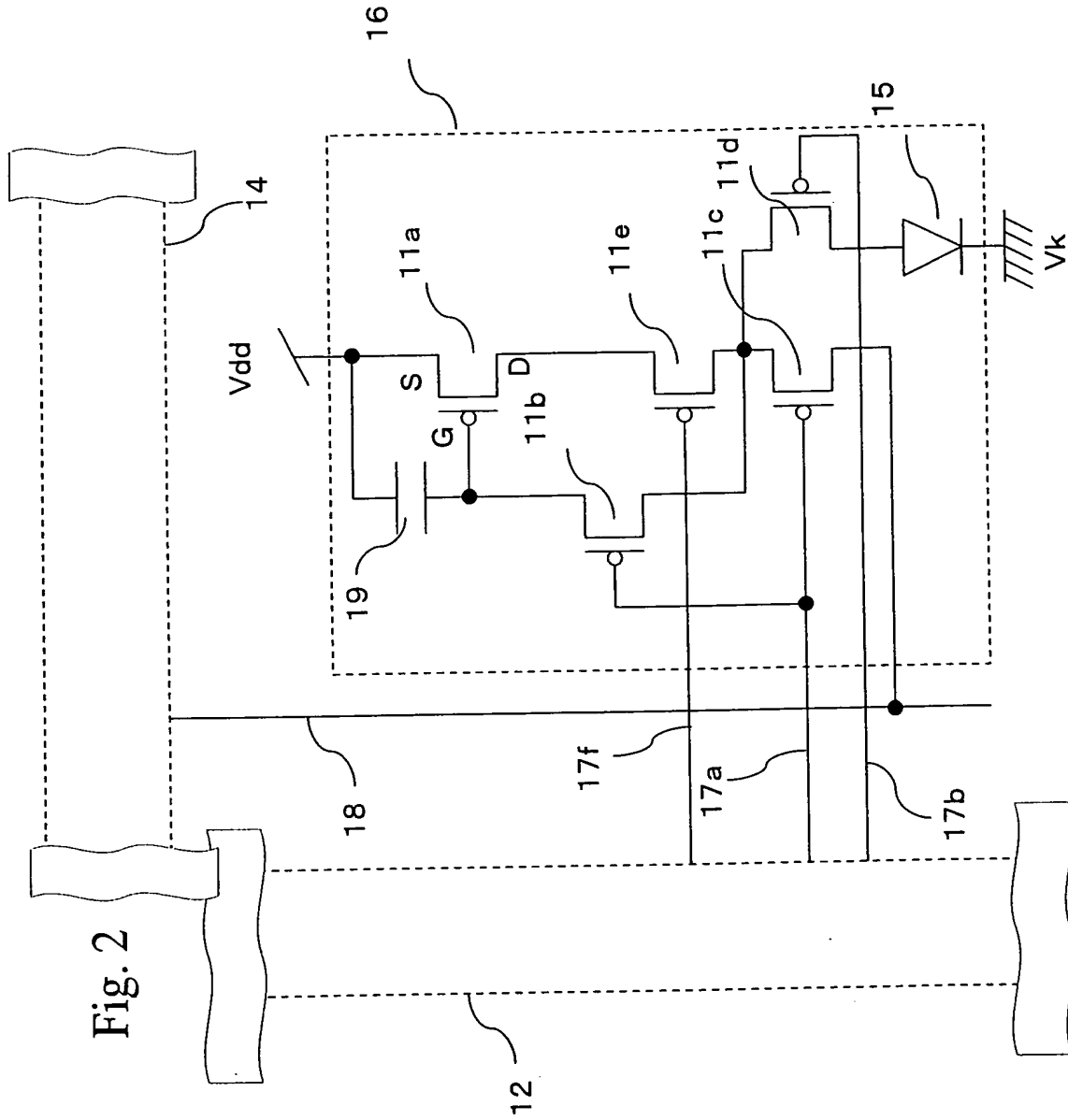


Fig. 3 (b)

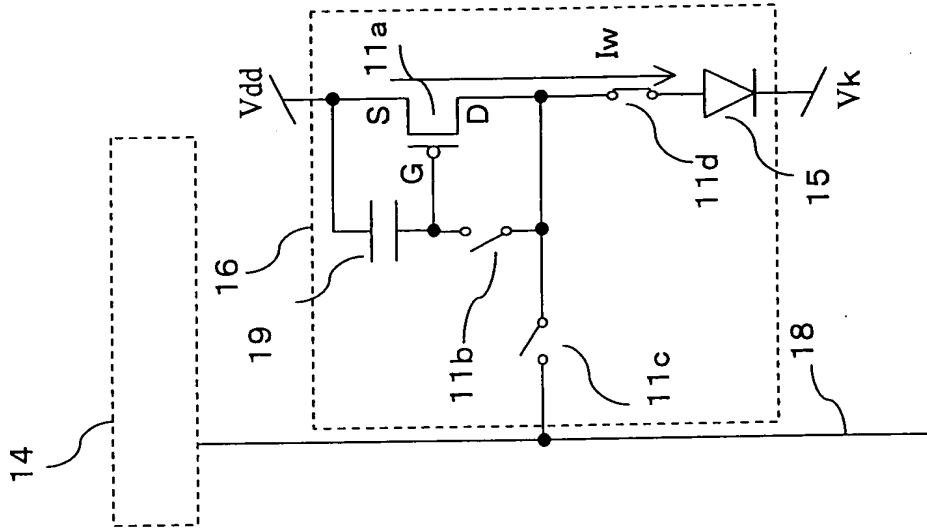
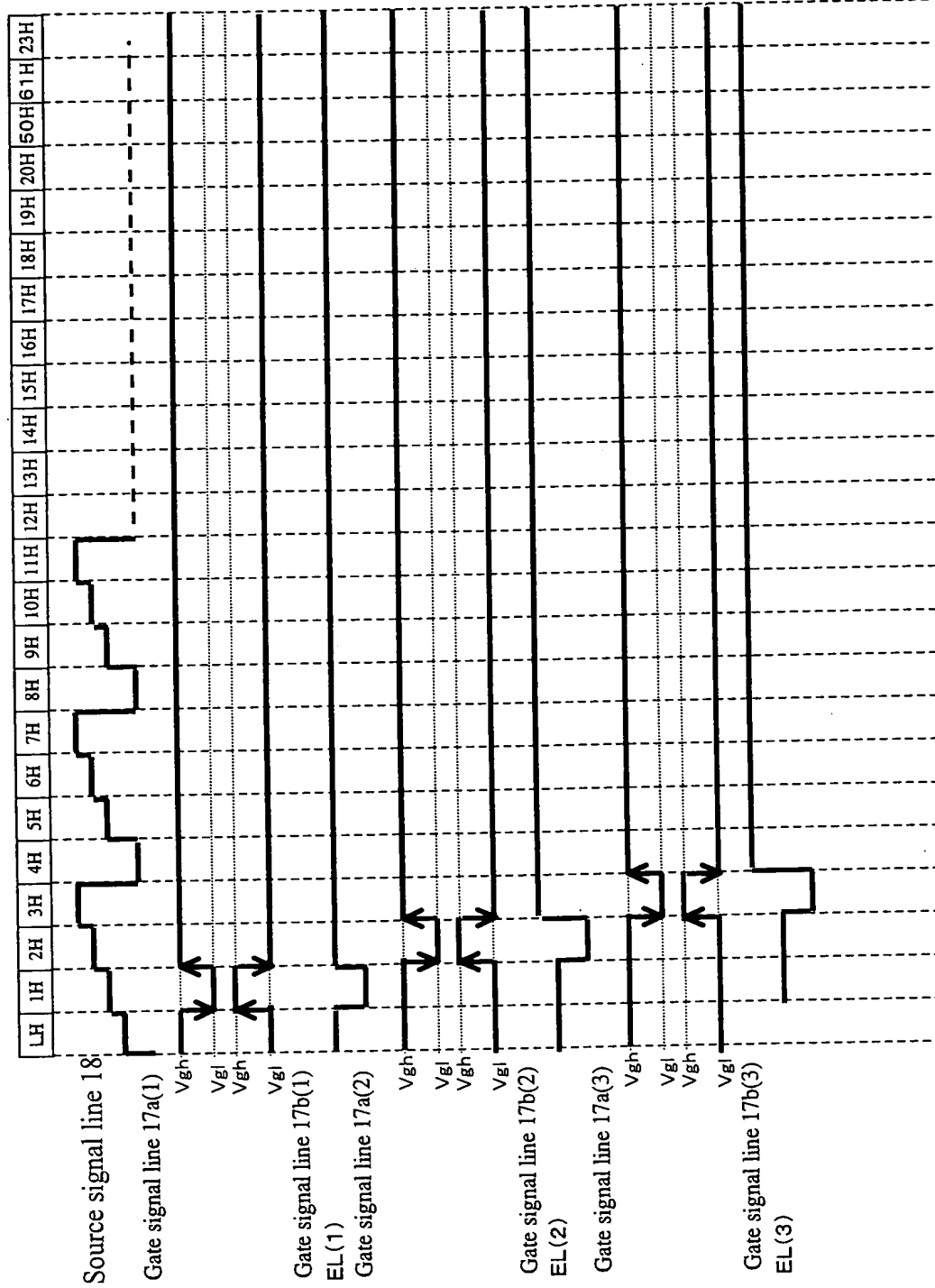


Fig. 3 (a)

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Fig. 4



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Fig. 5 (b)

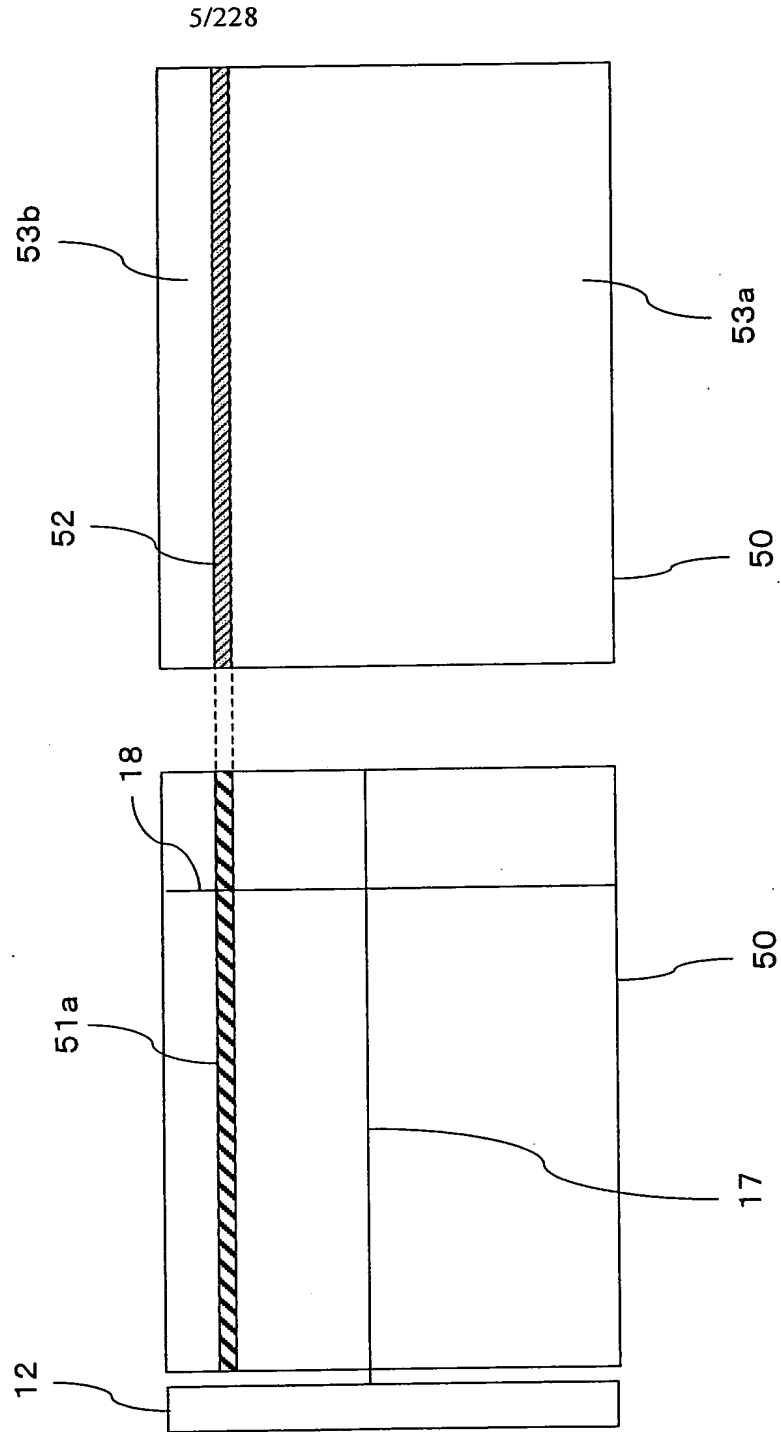
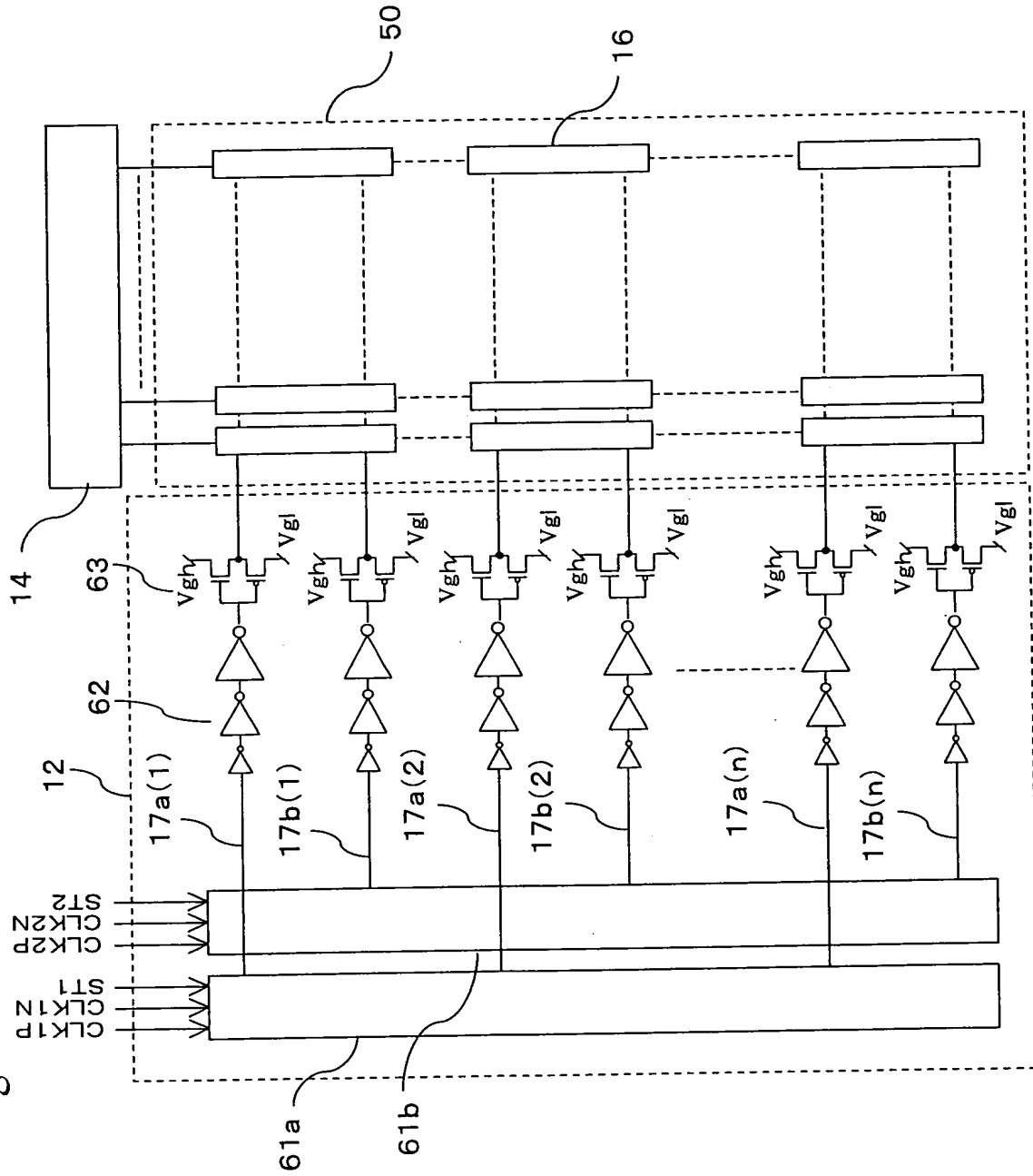


Fig. 5 (a)

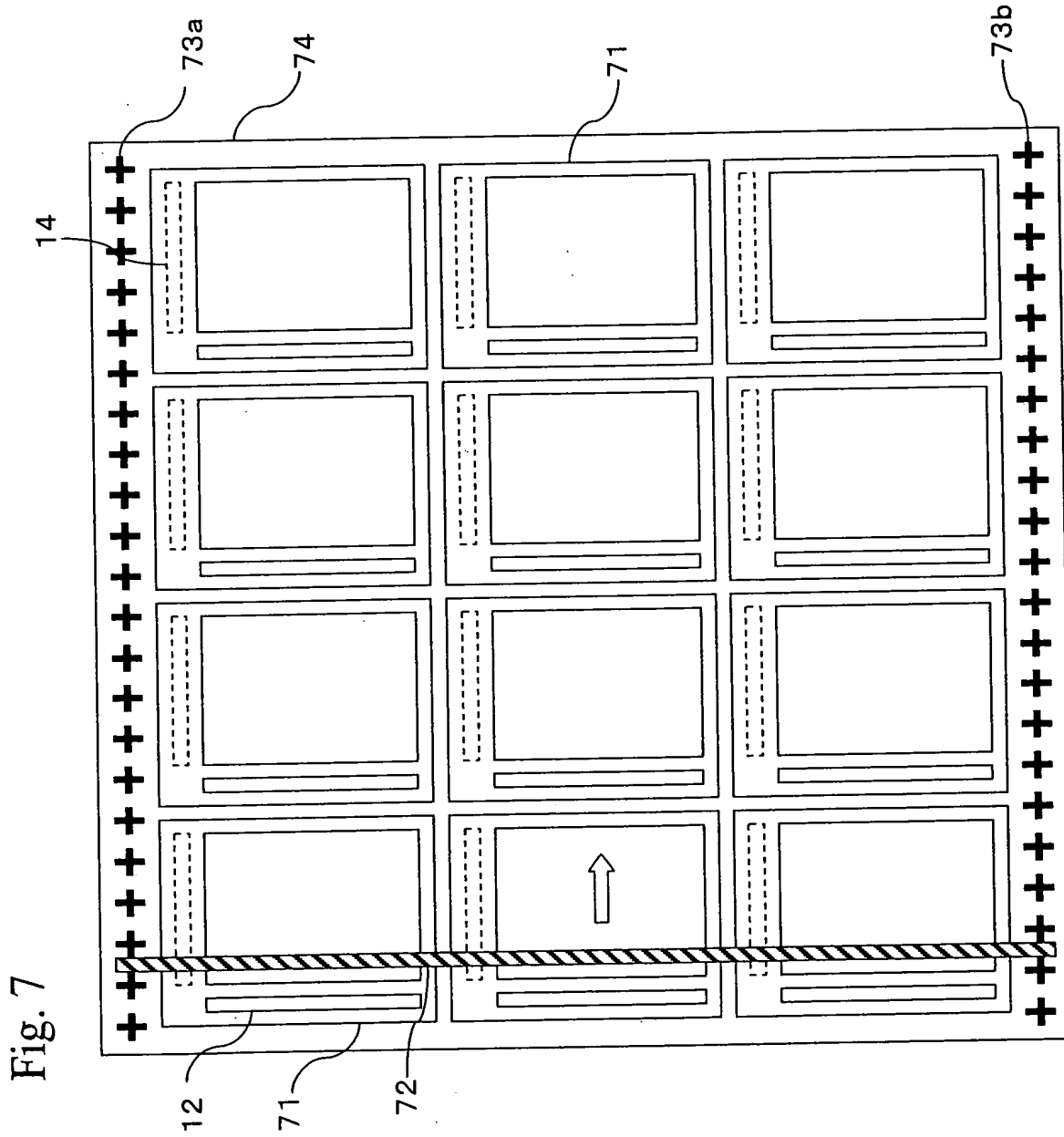
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Fig. 6



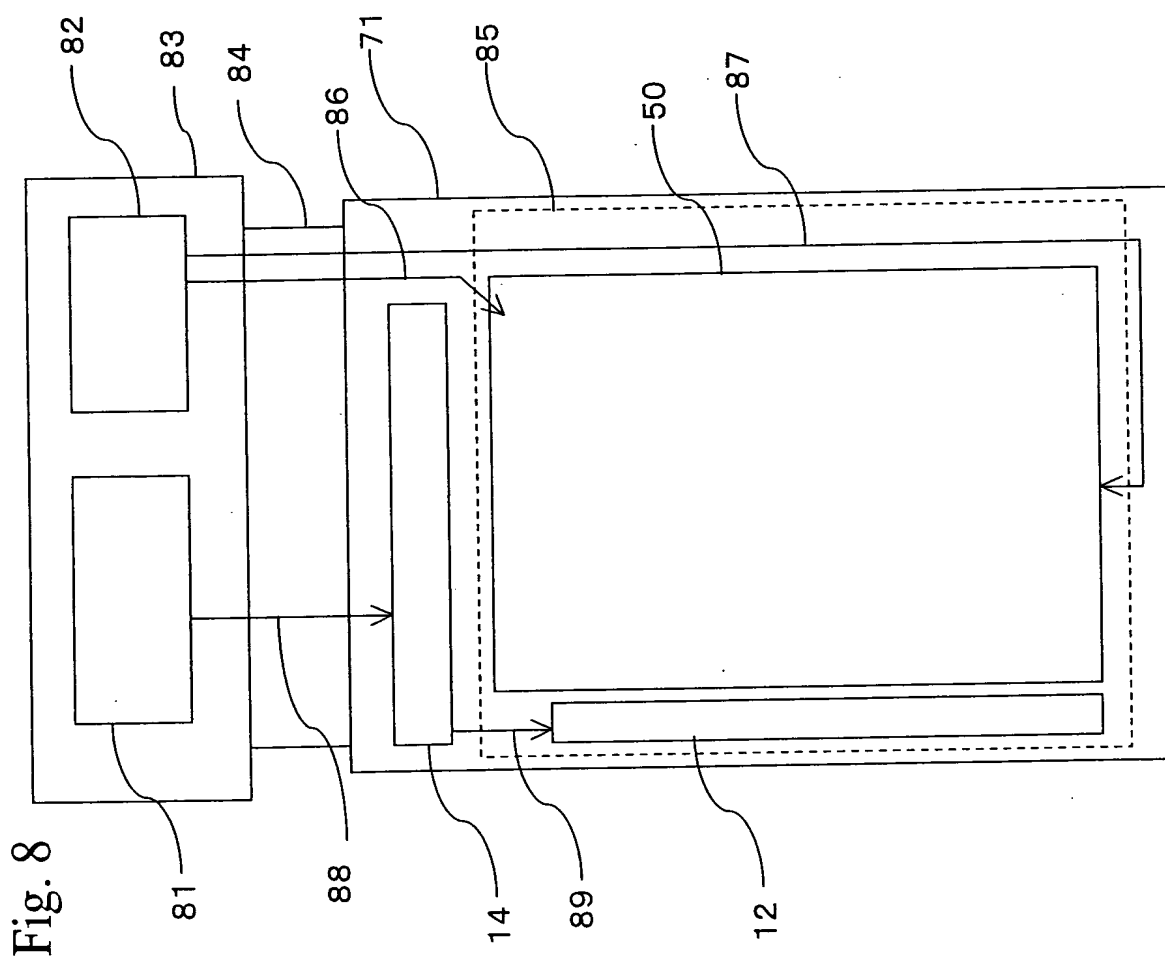
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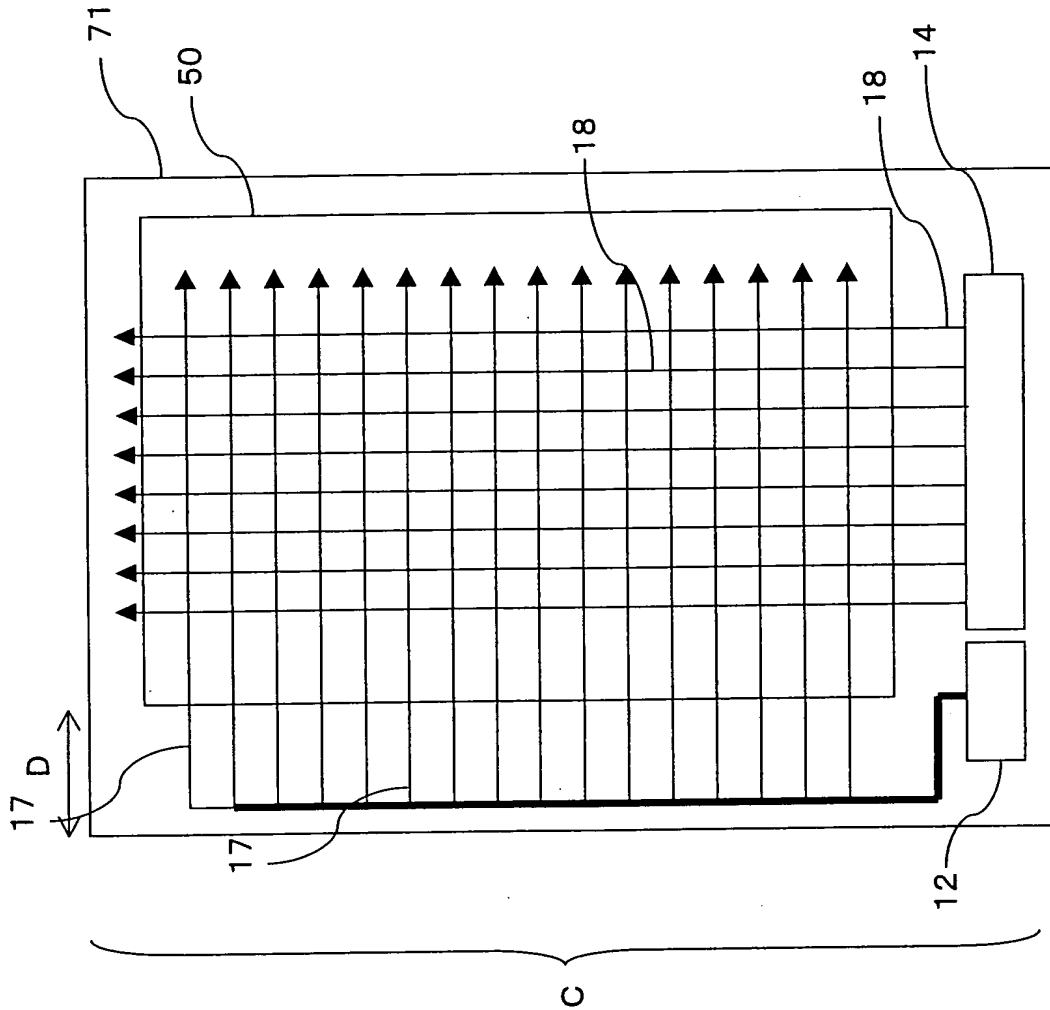
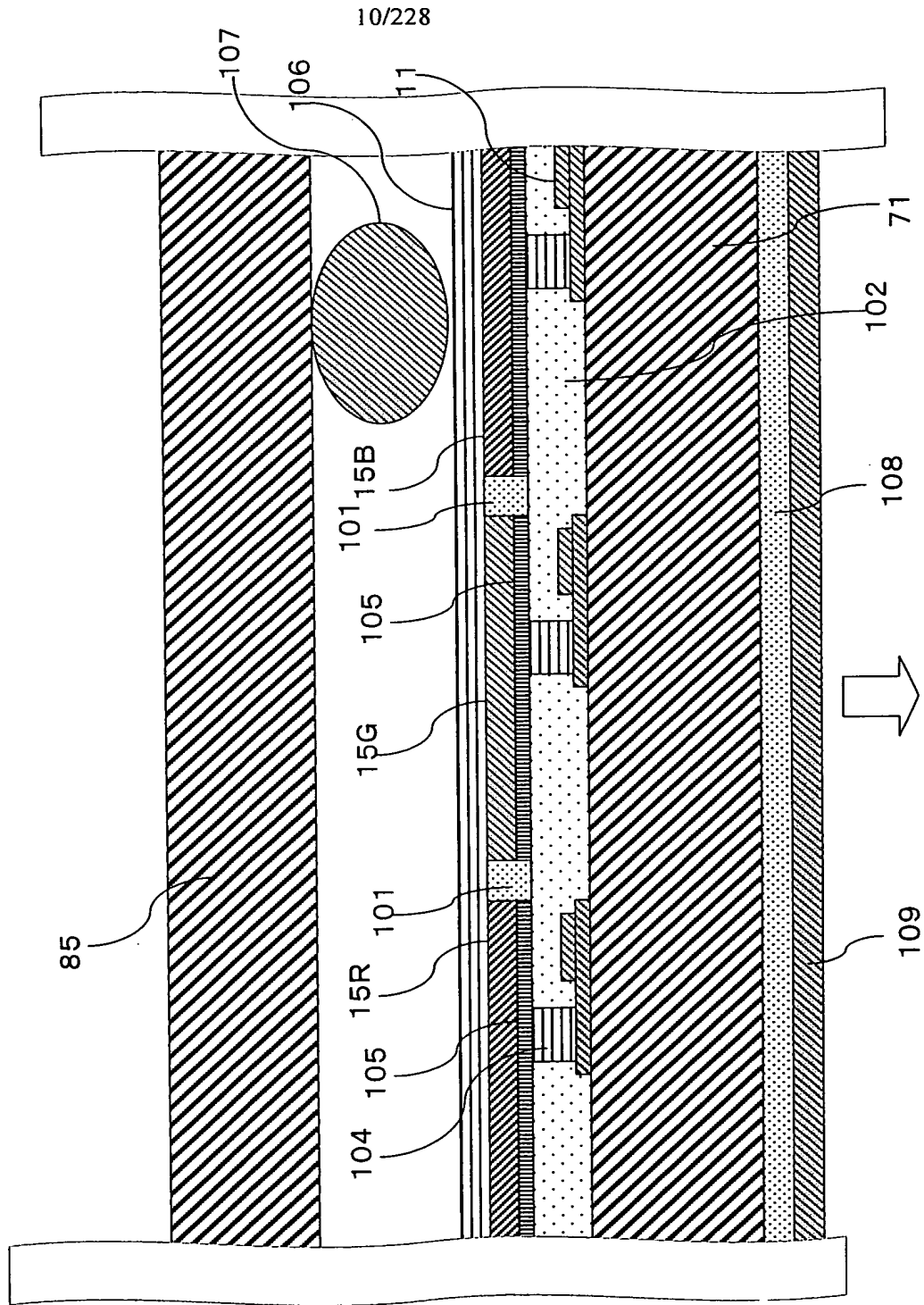


Fig. 9

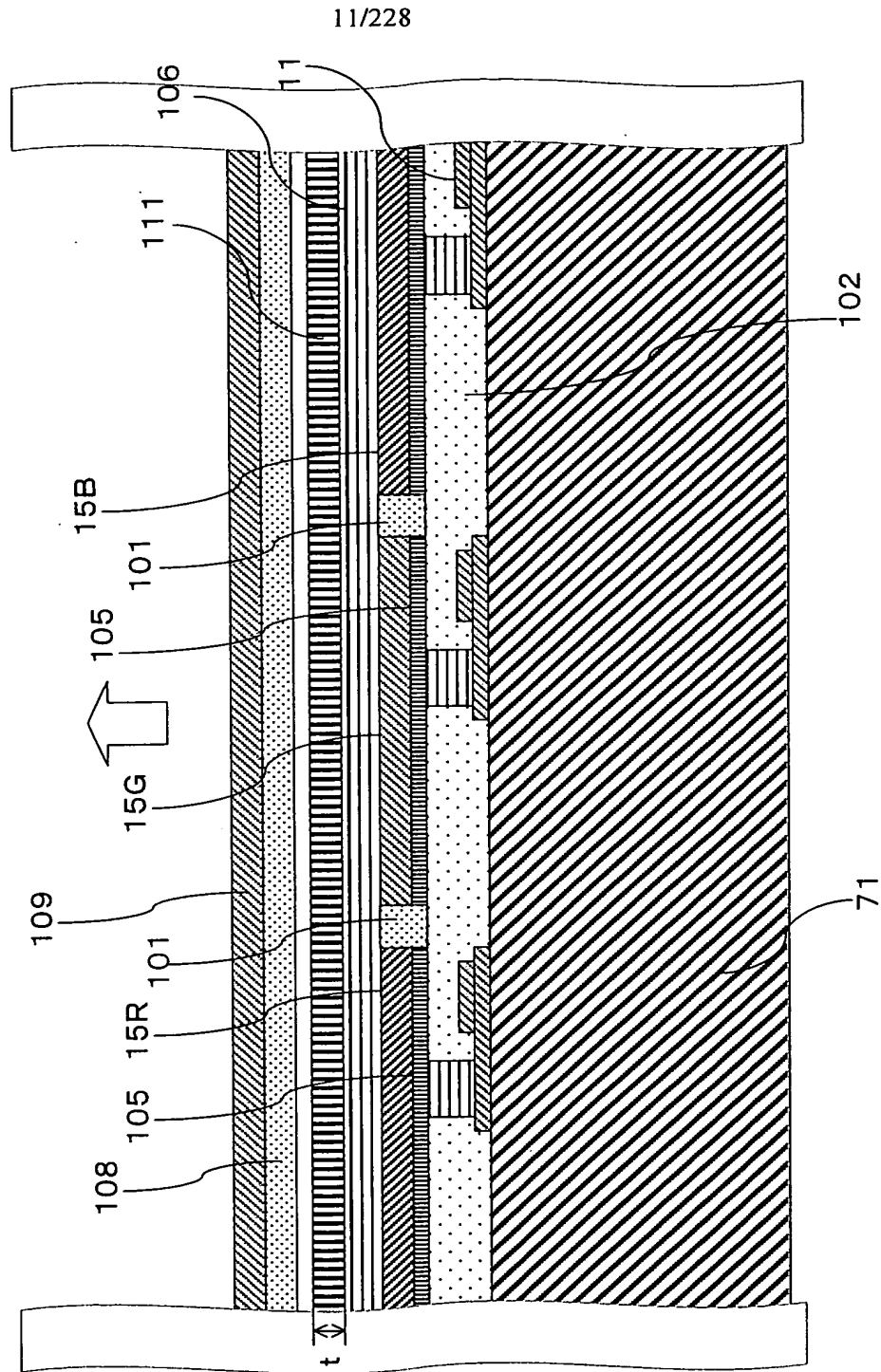
10/511448

Fig. 10



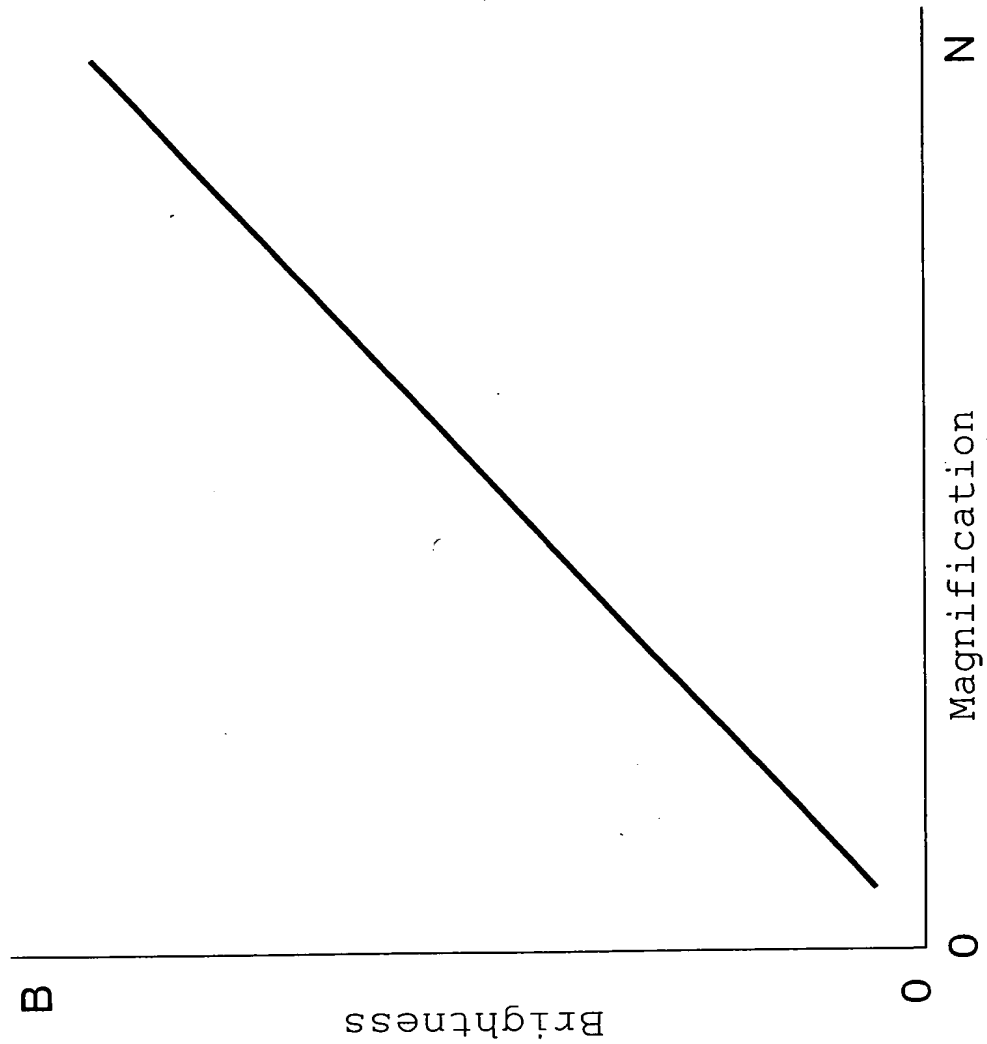
10/511448

Fig. 11



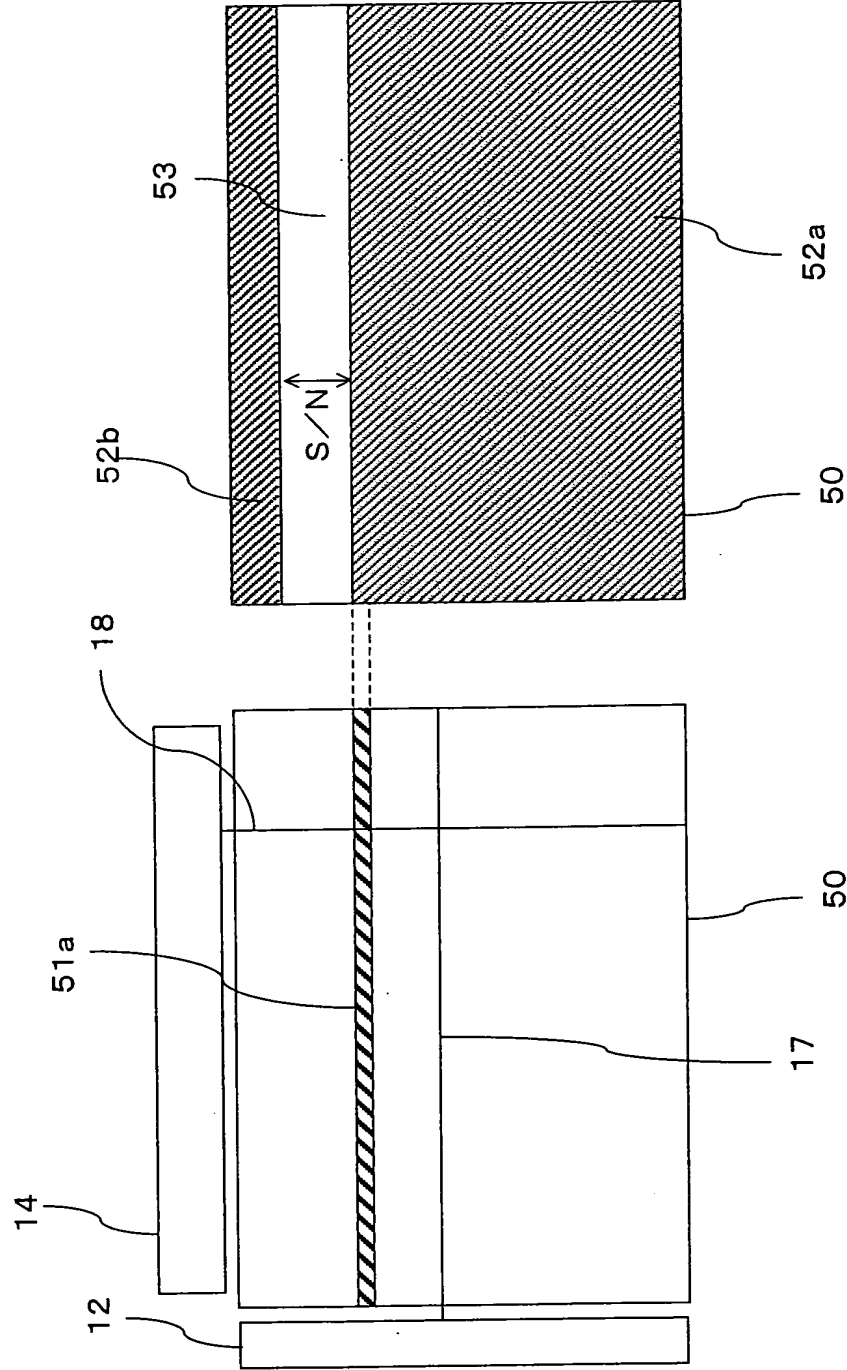
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Fig. 12

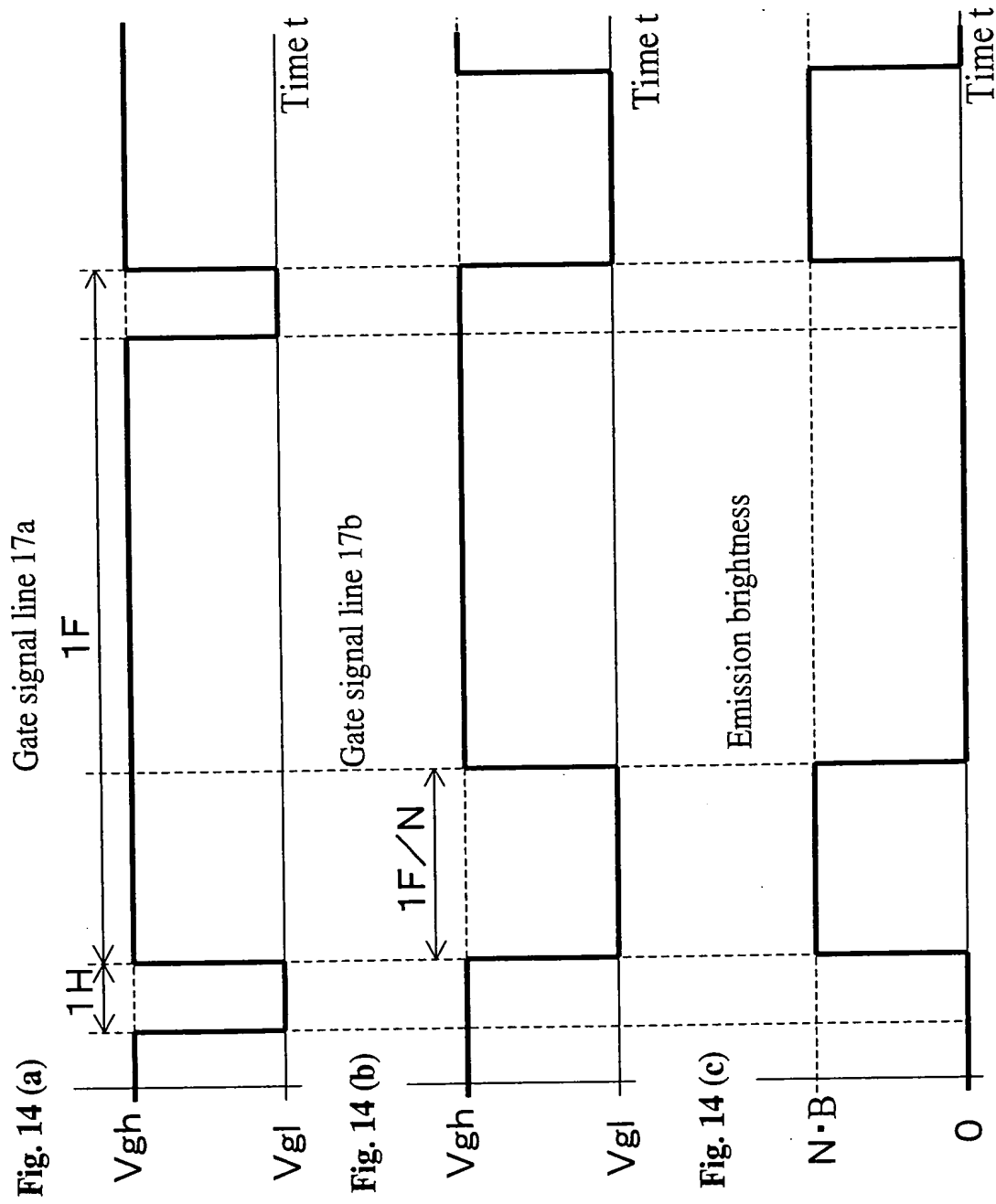


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Fig. 13 (b)



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Fig. 15

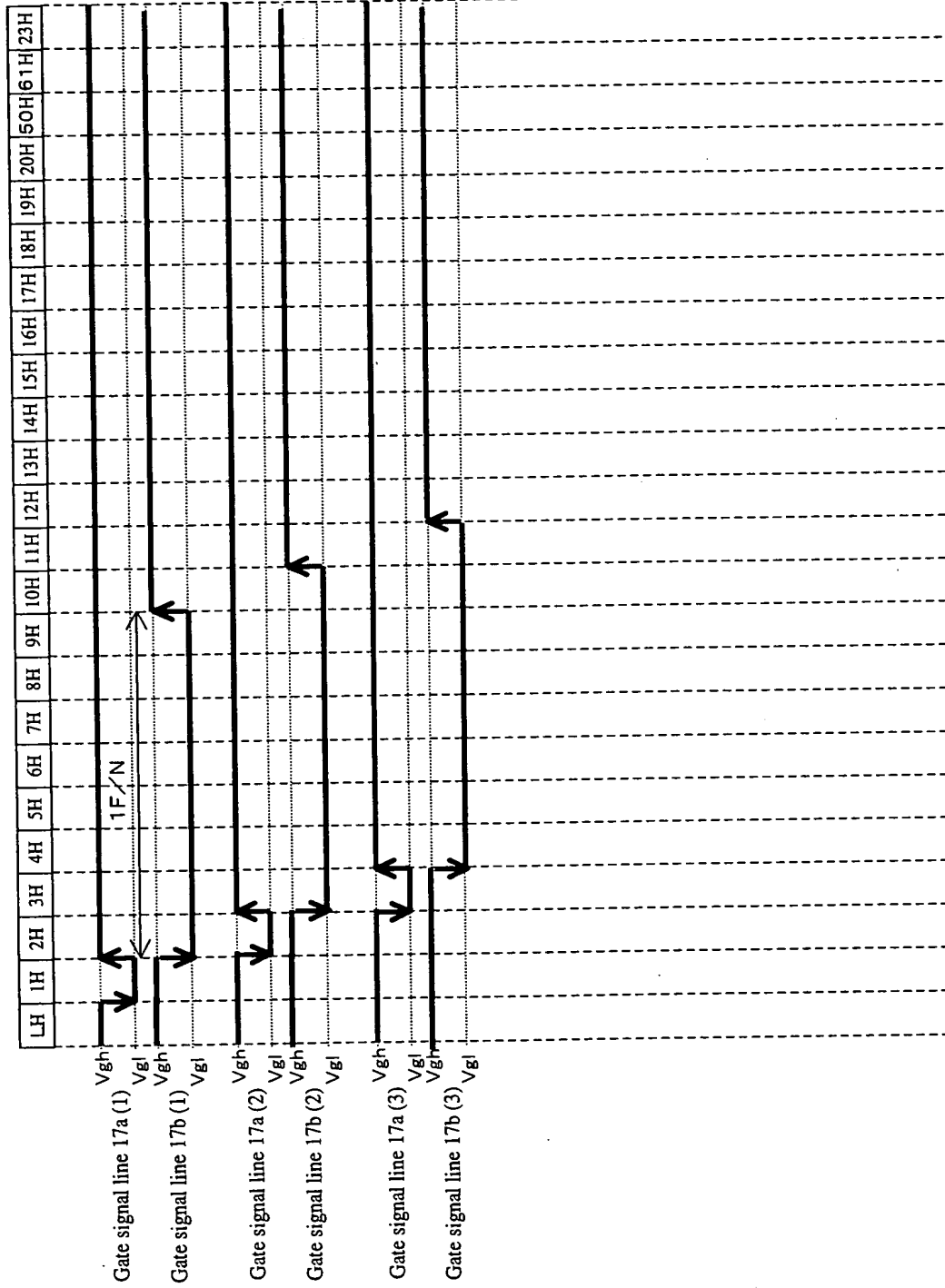
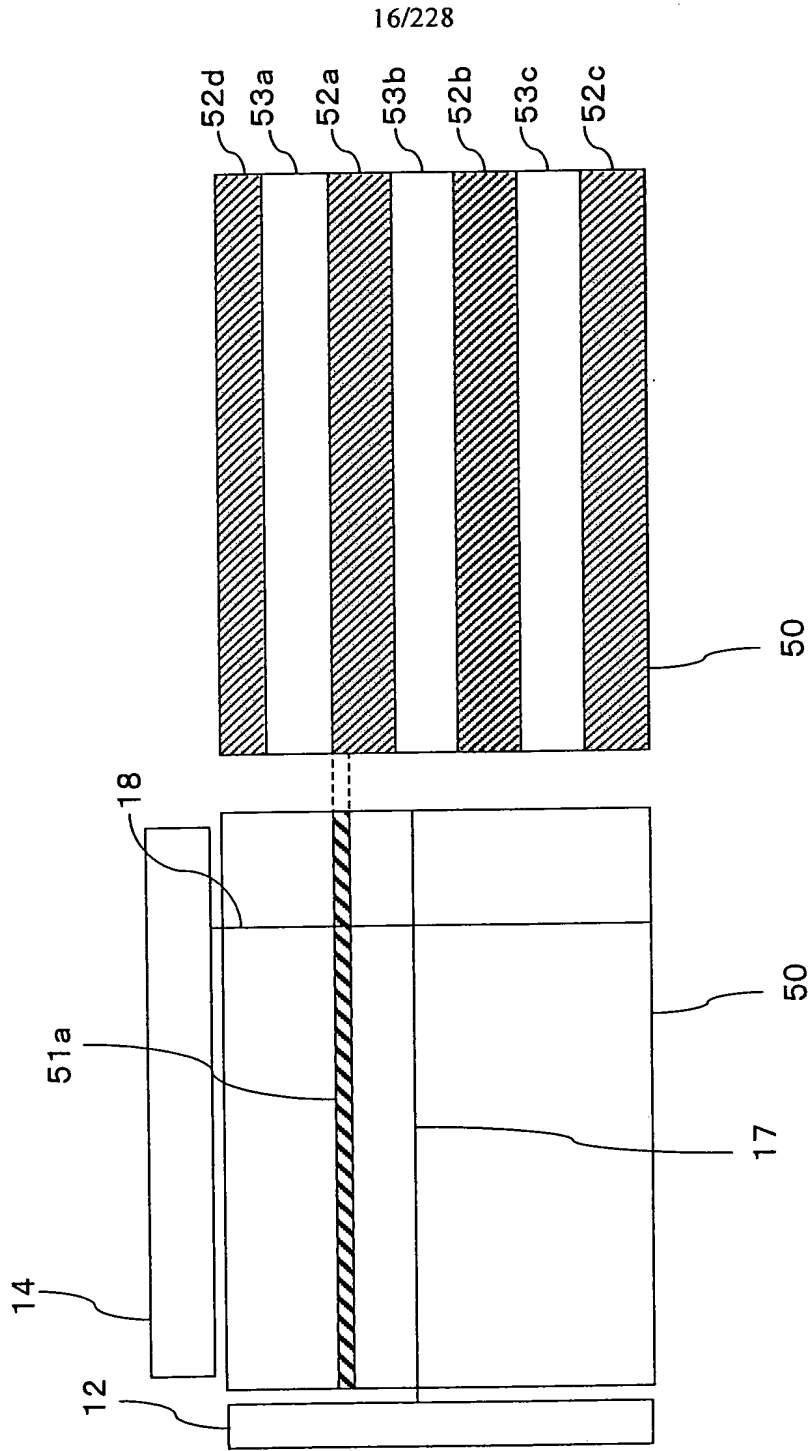
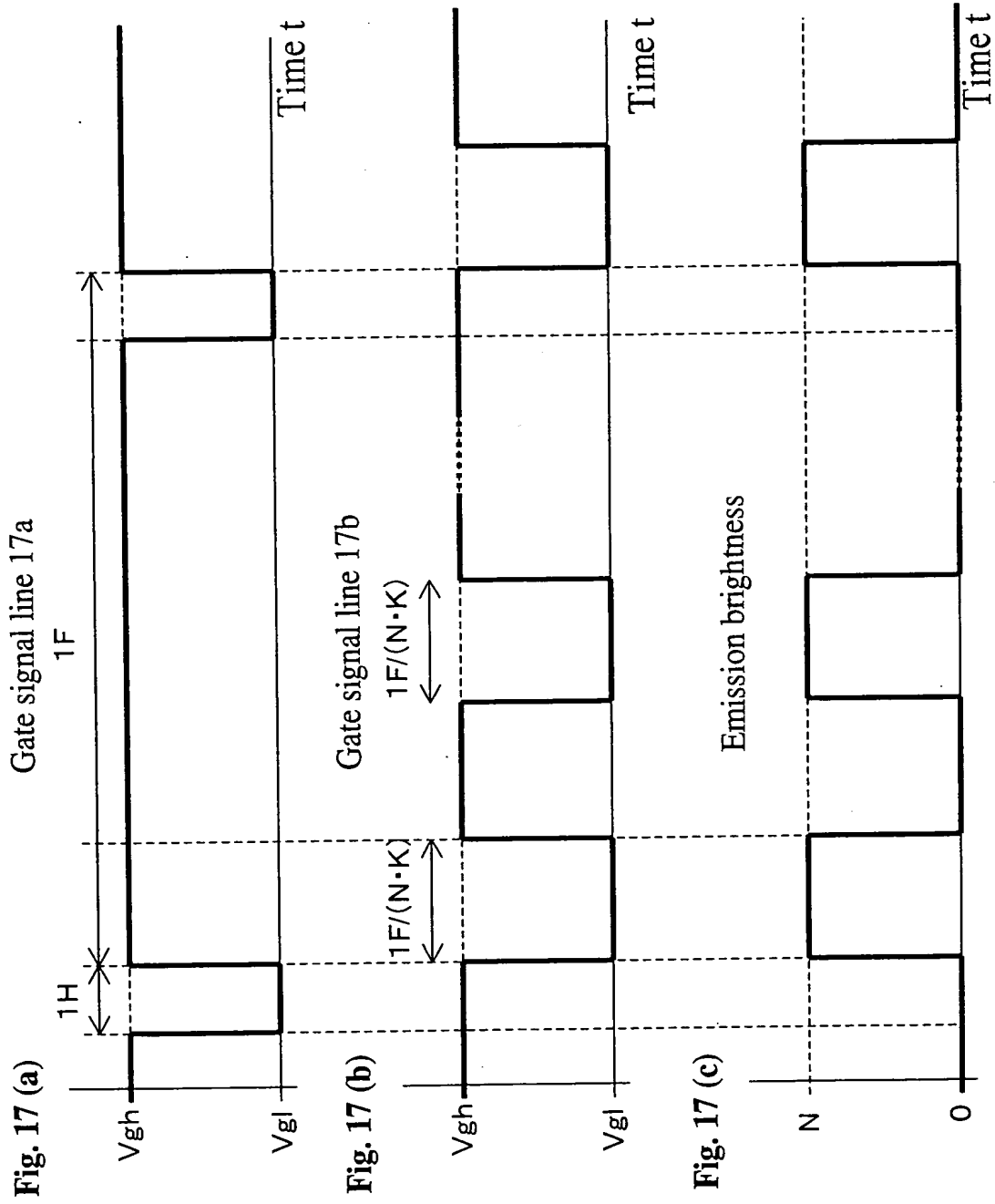


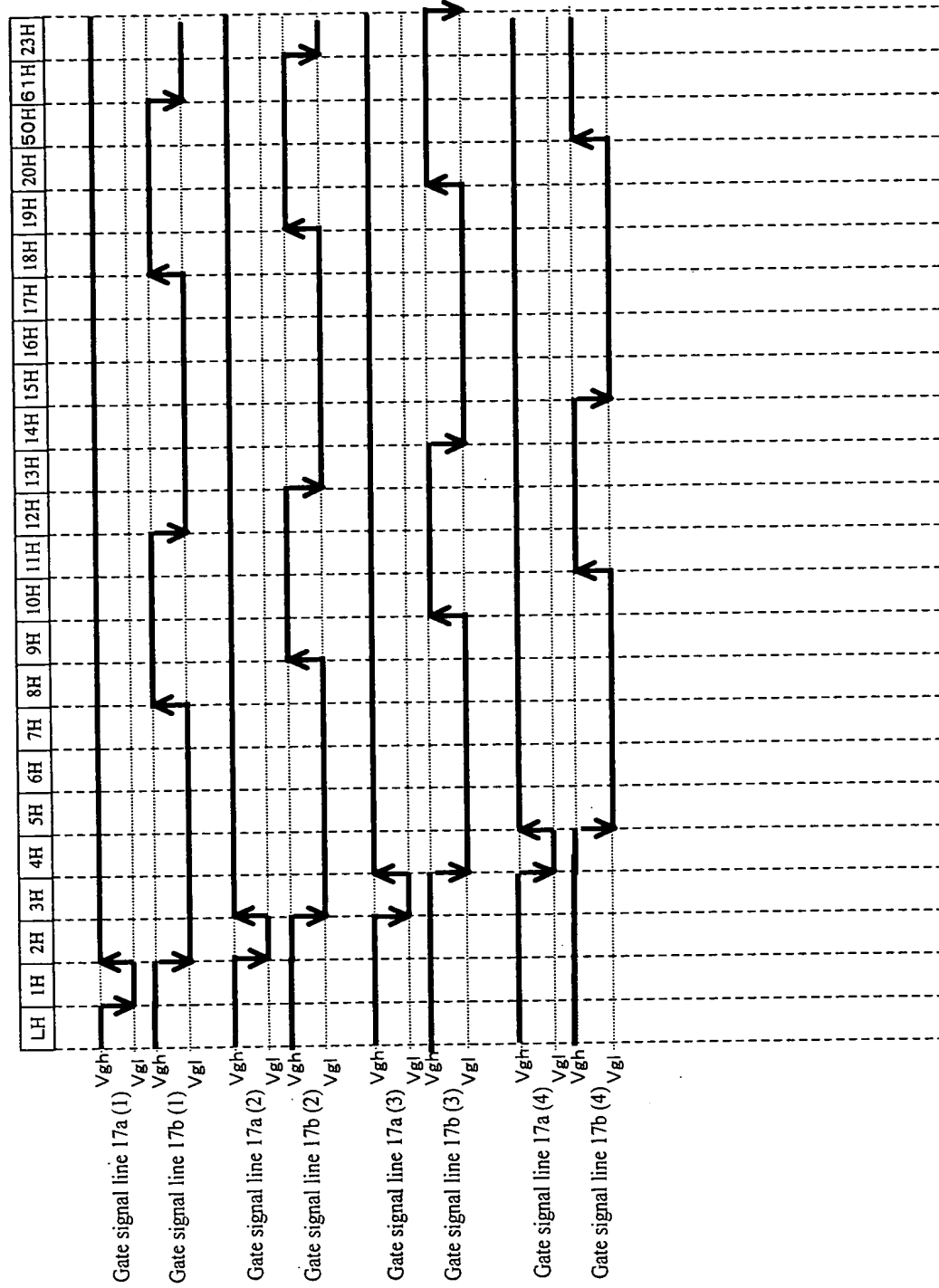
Fig. 16 (b)



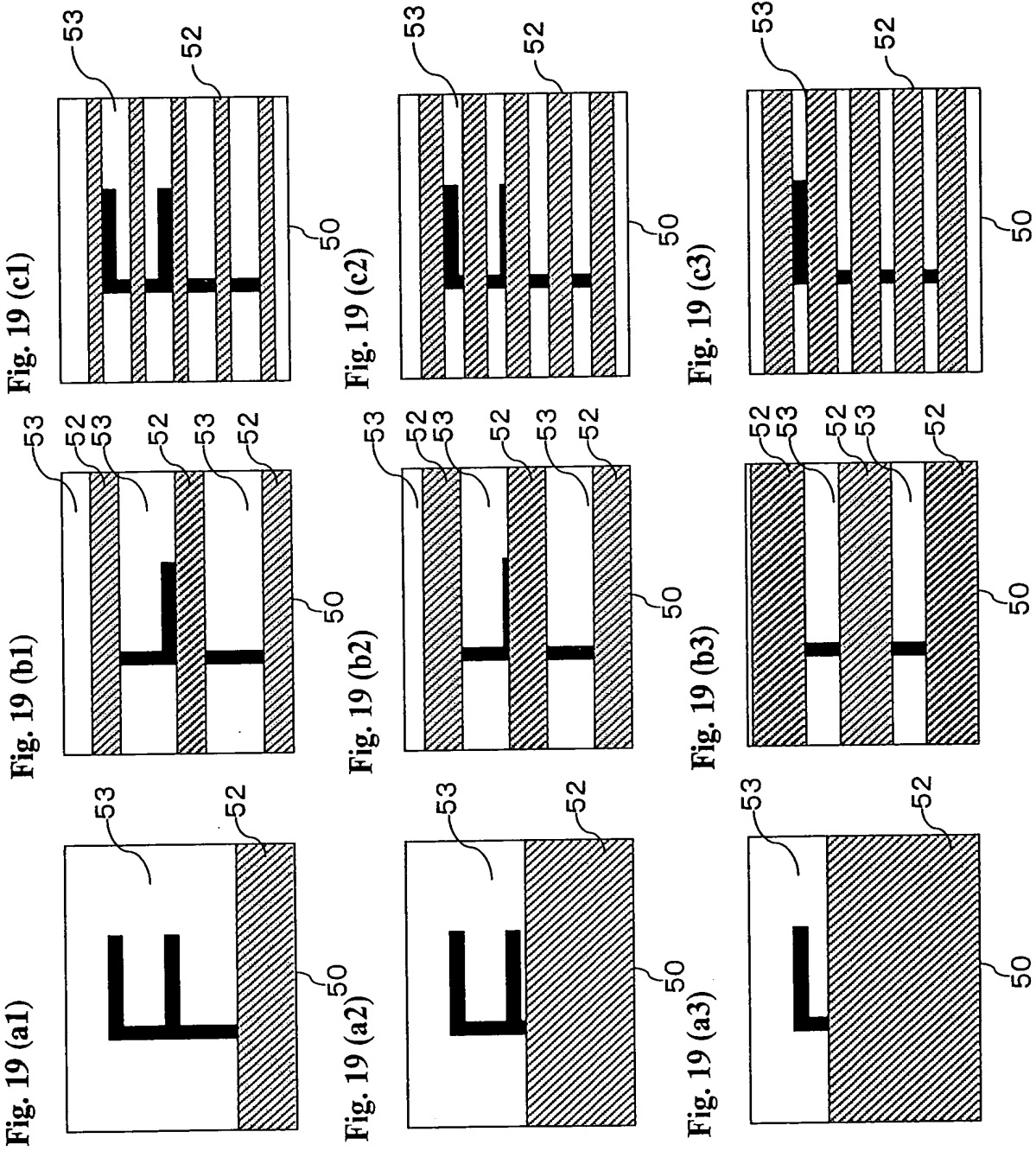
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Fig. 20 (b)

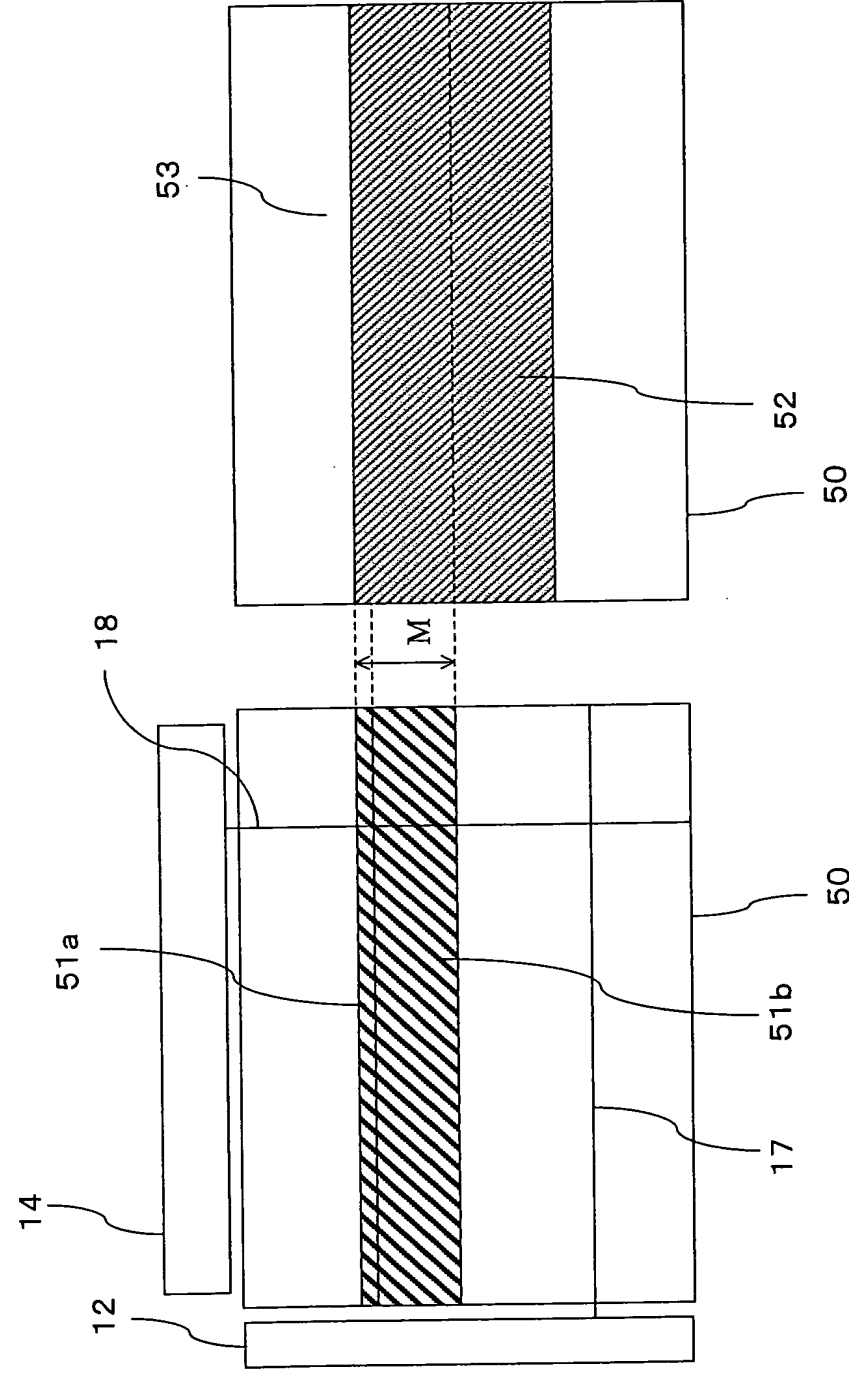
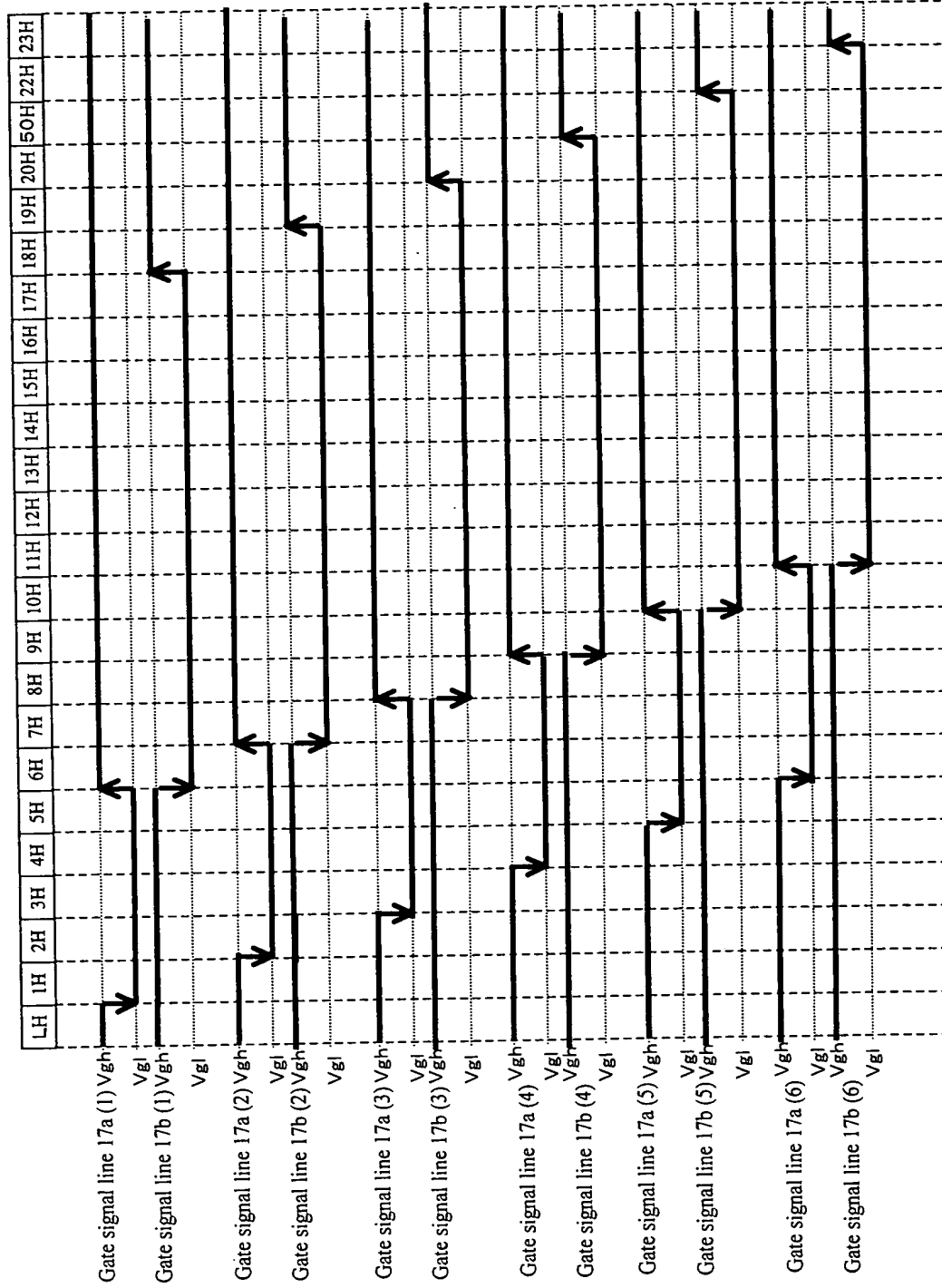


Fig. 20 (a)

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Fig. 21



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Fig. 22 (b)

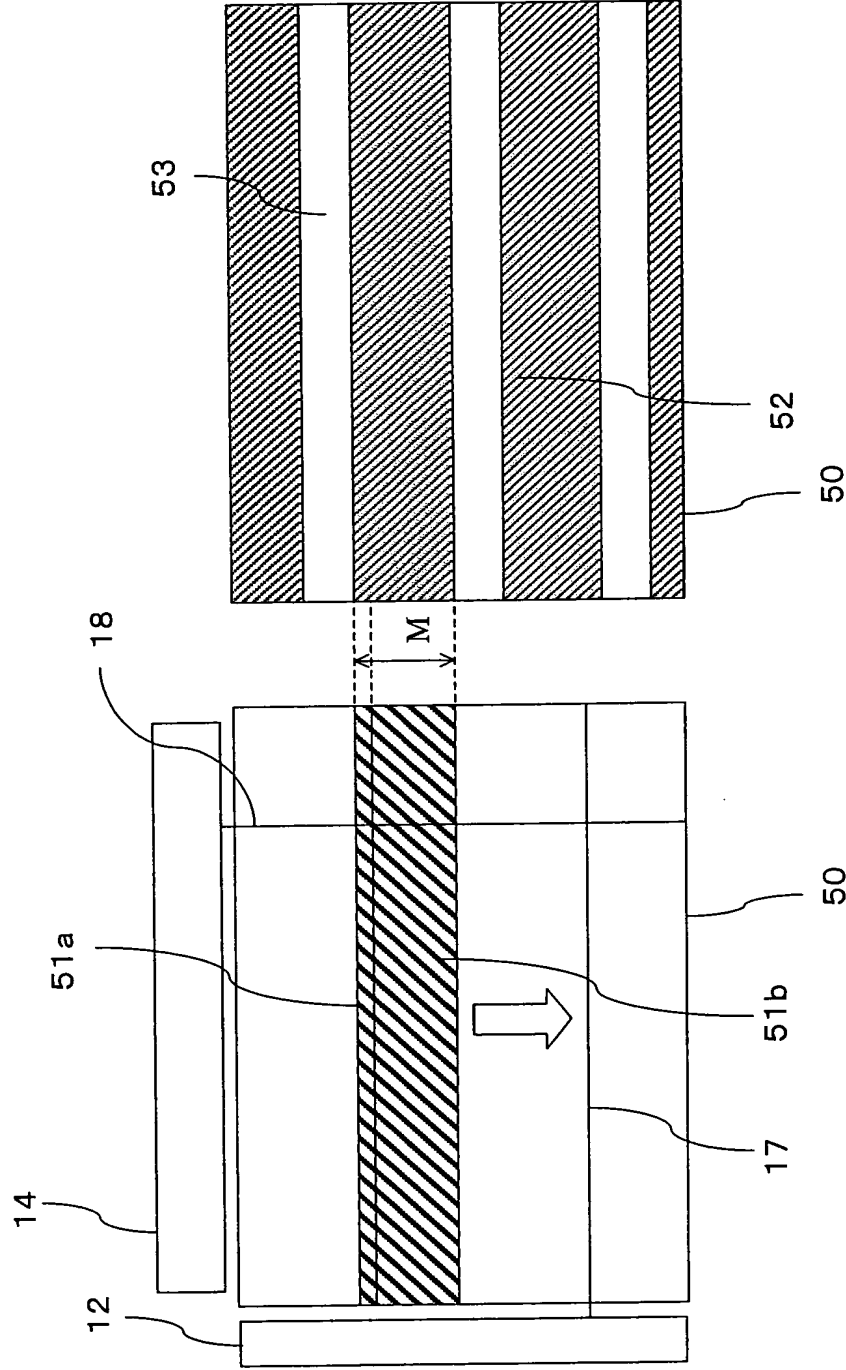


Fig. 22 (a)

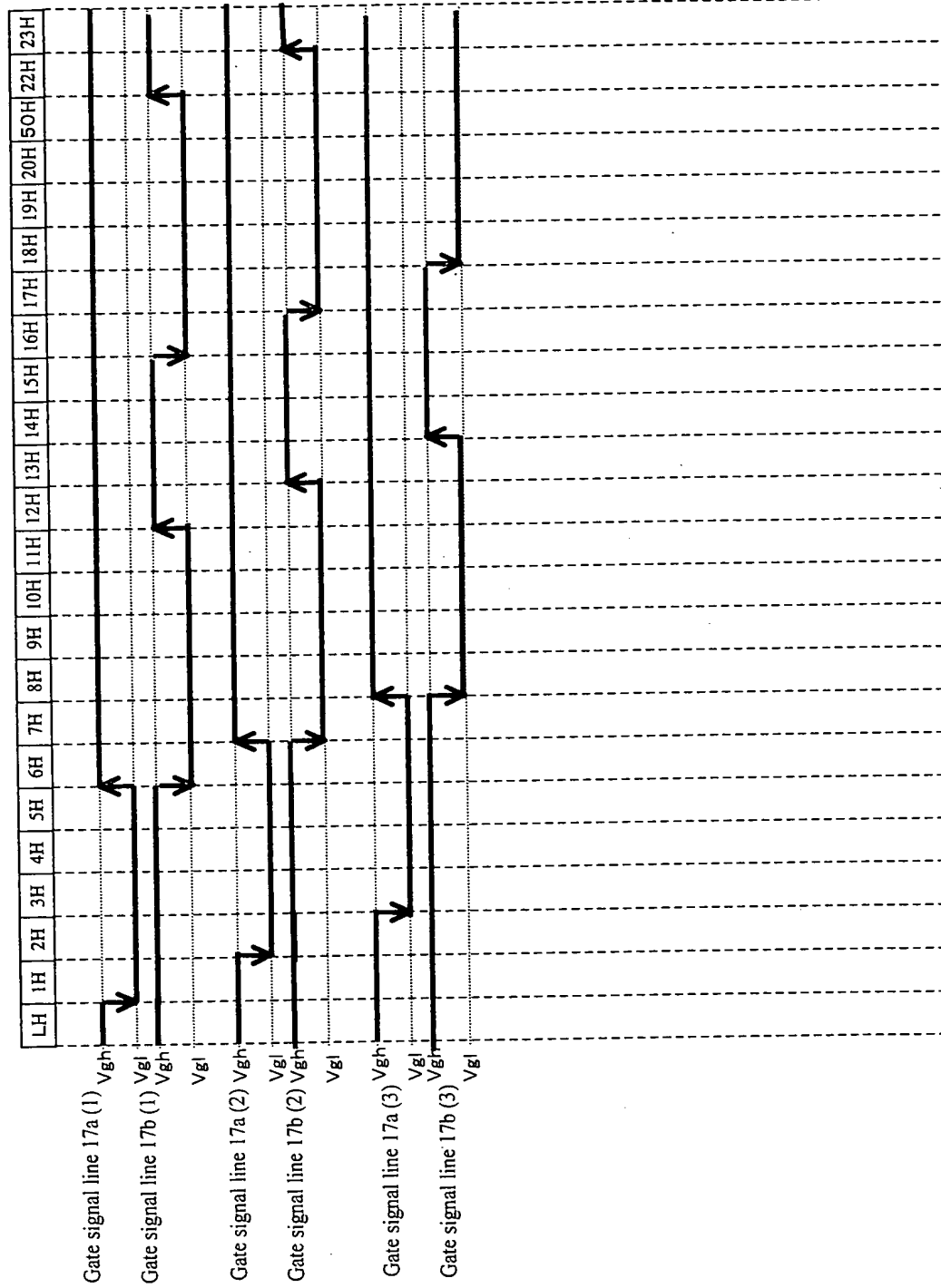


Fig. 24 (b)

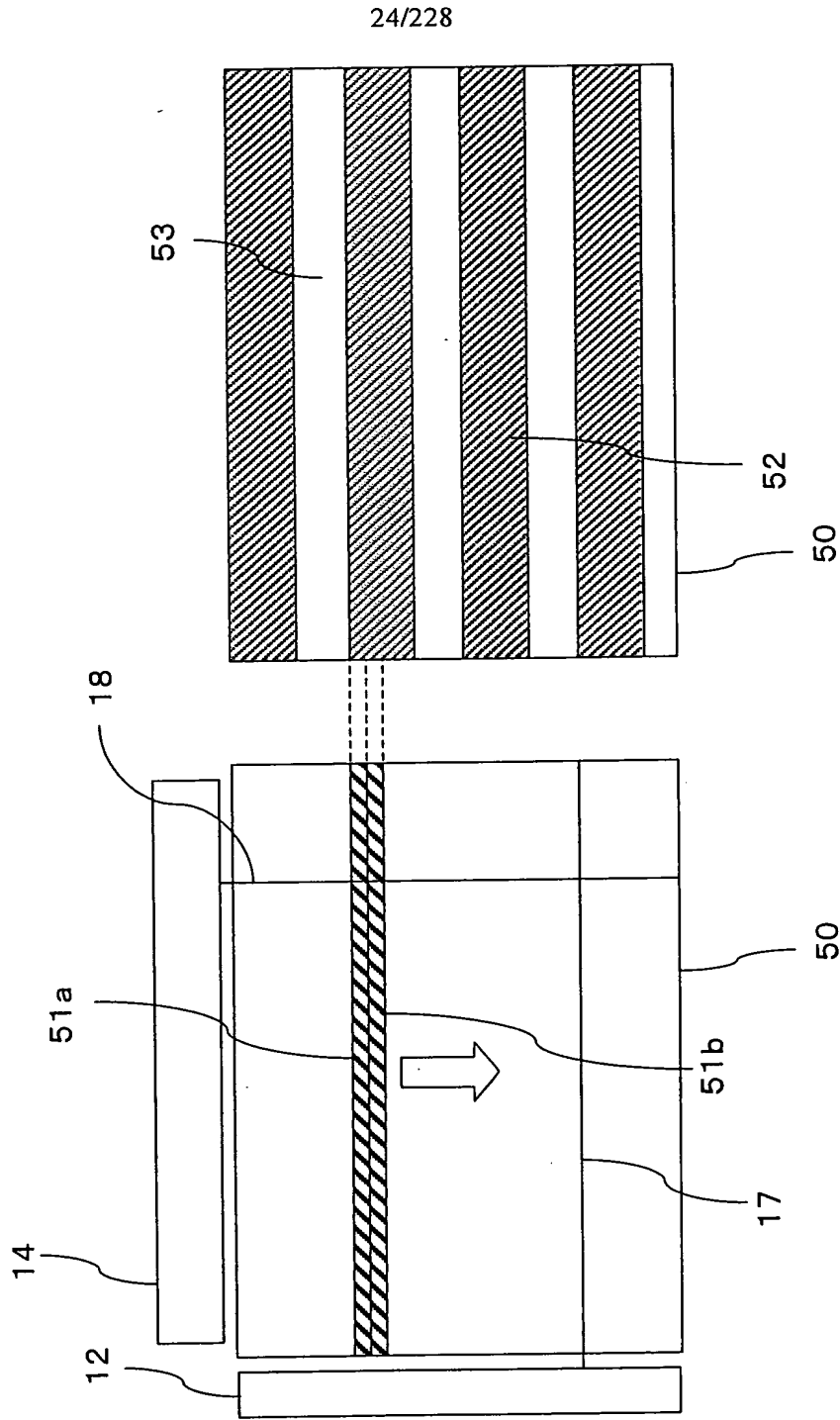


Fig. 24 (a)

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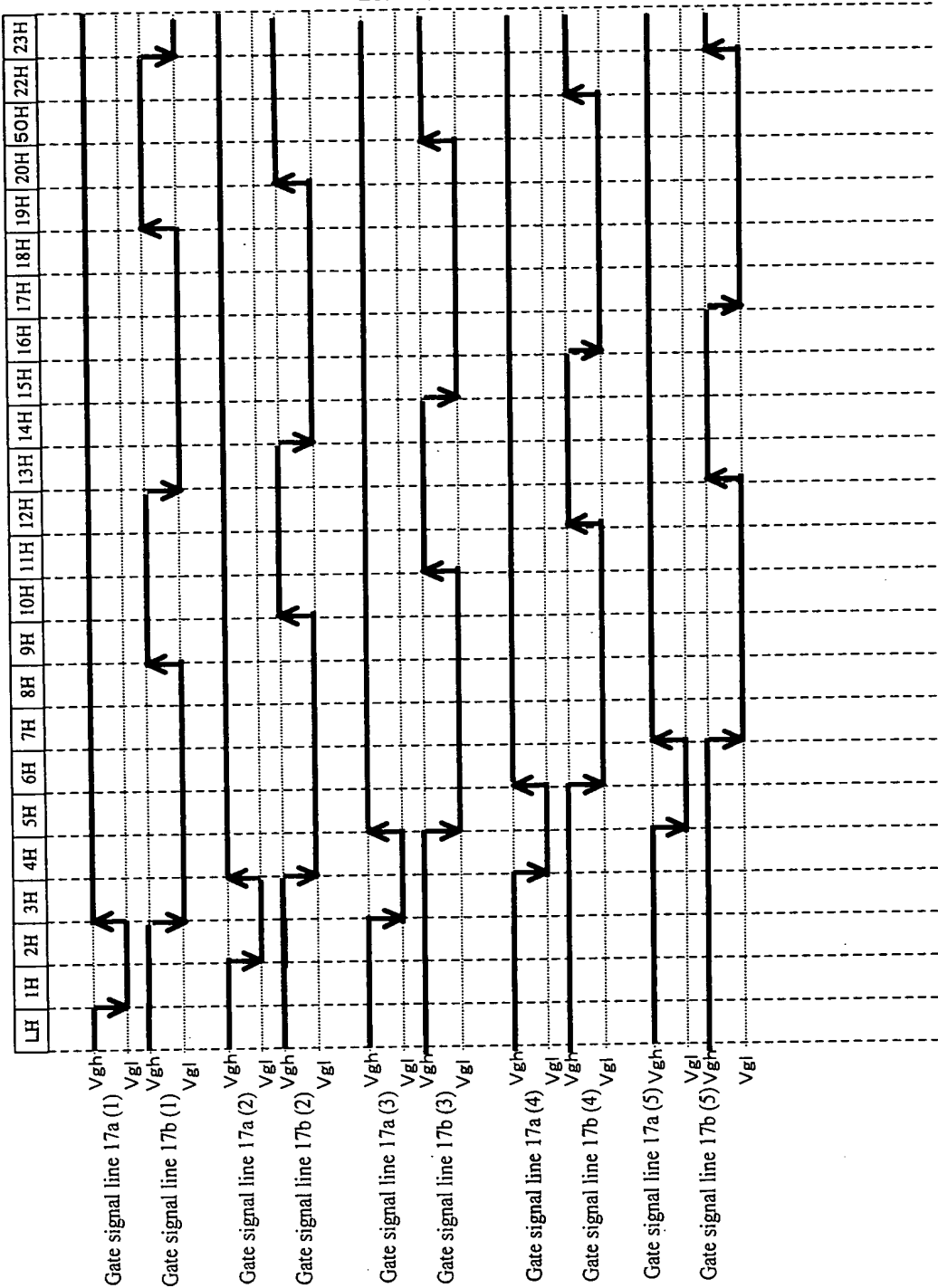


Fig. 25

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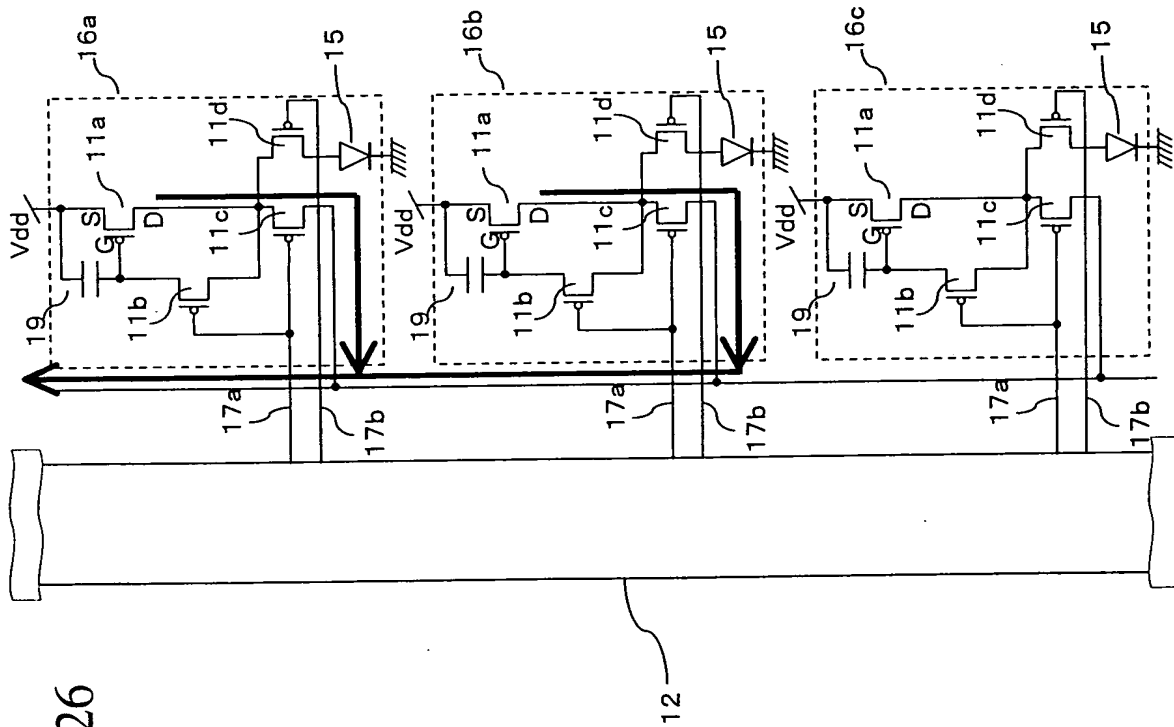


Fig. 26

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Fig. 27 (b)

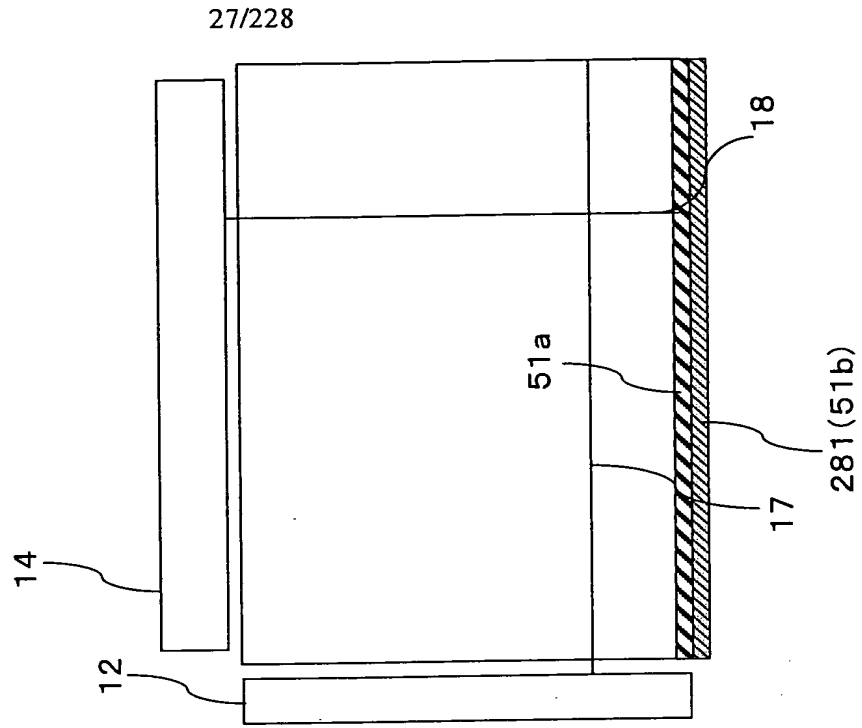
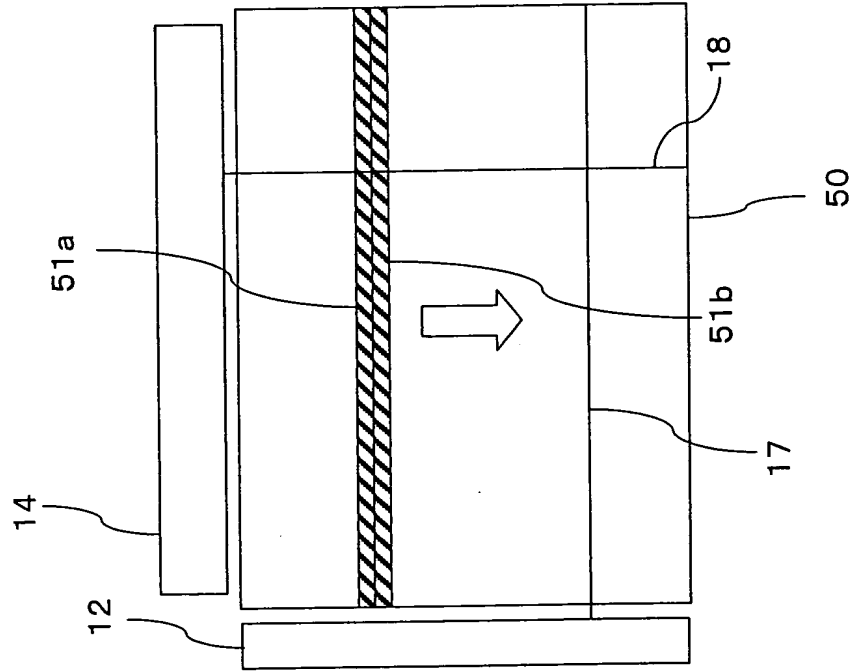


Fig. 27 (a)



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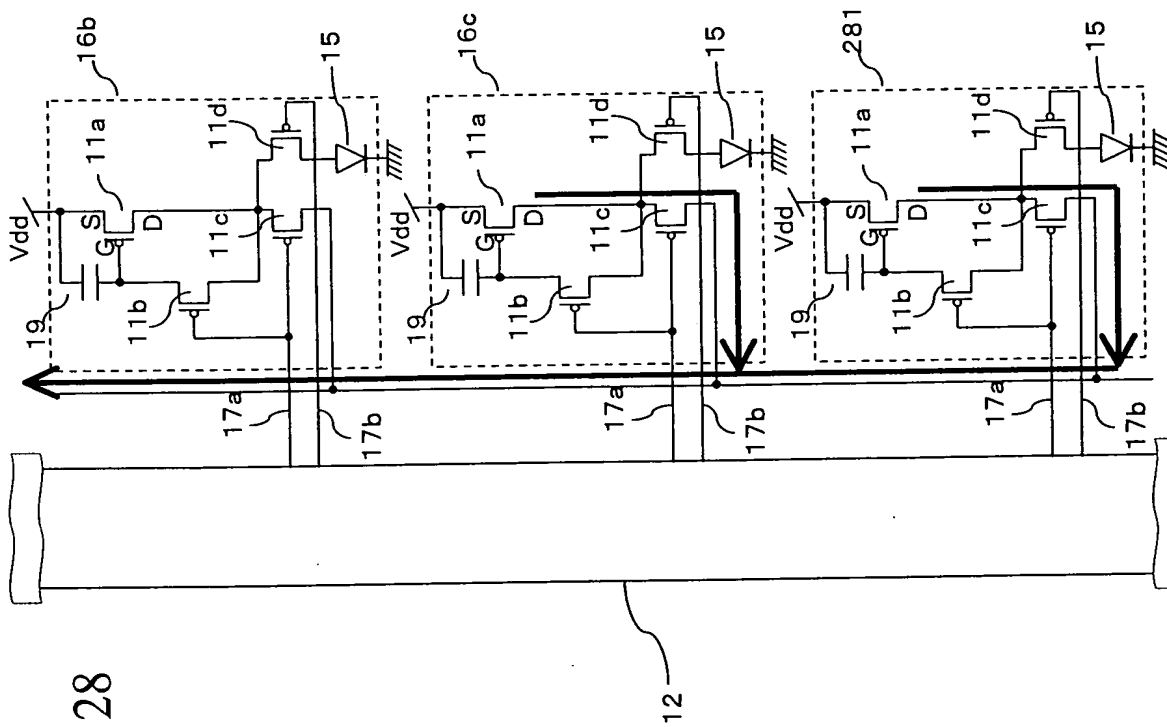


Fig. 28

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Fig. 29 (b)

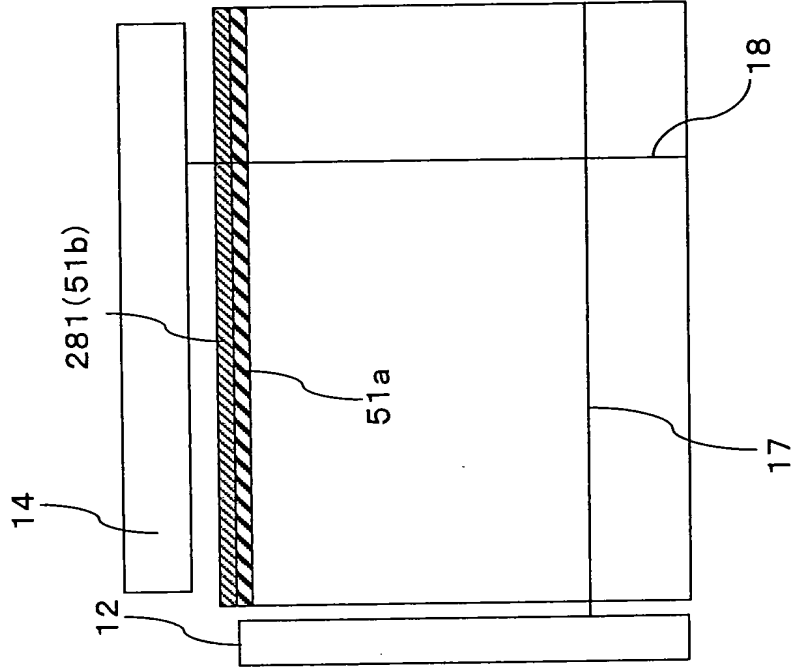


Fig. 29 (a)

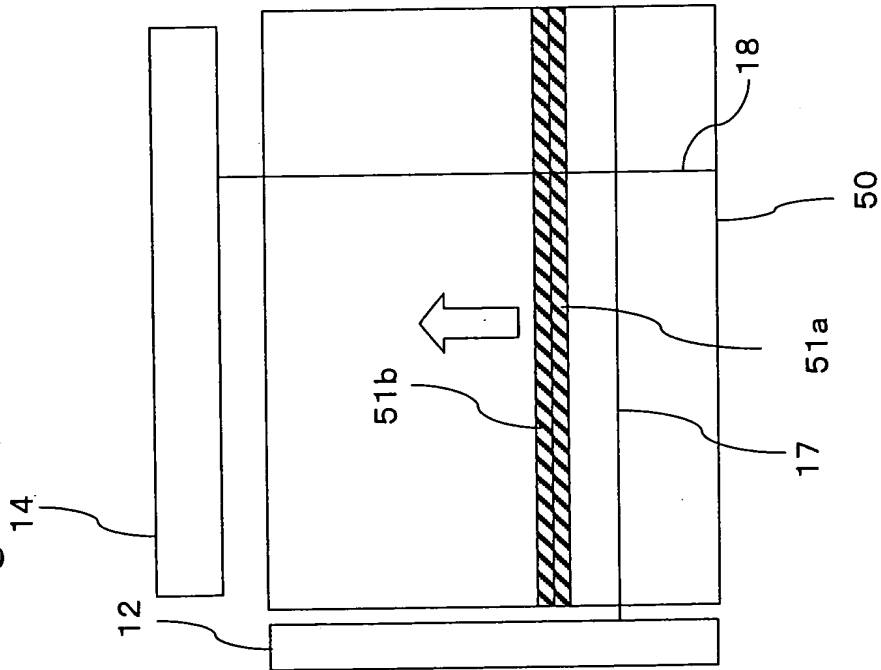


Fig. 30 (a1)

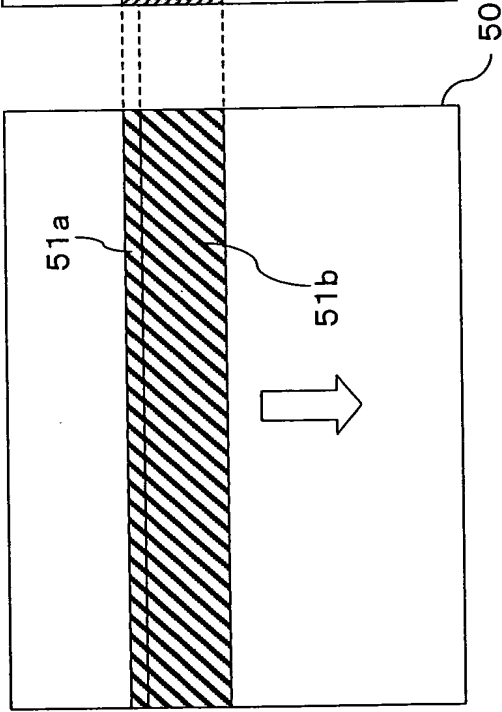


Fig. 30 (a2)

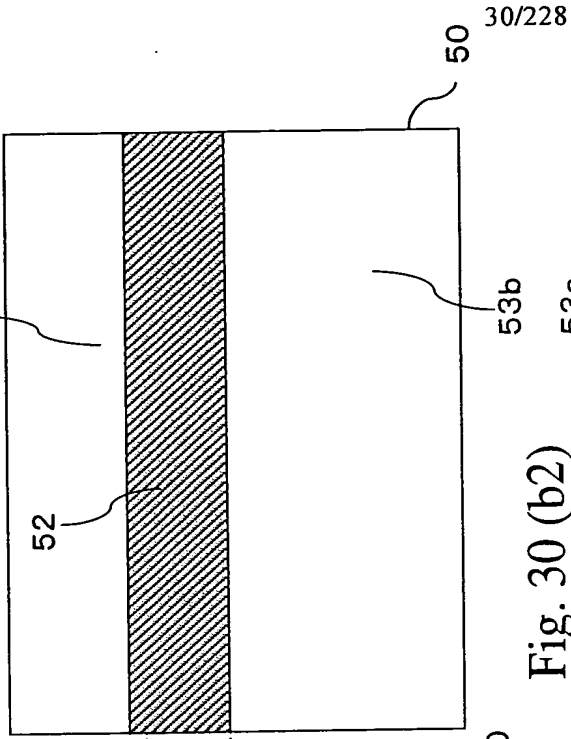


Fig. 30 (b1)

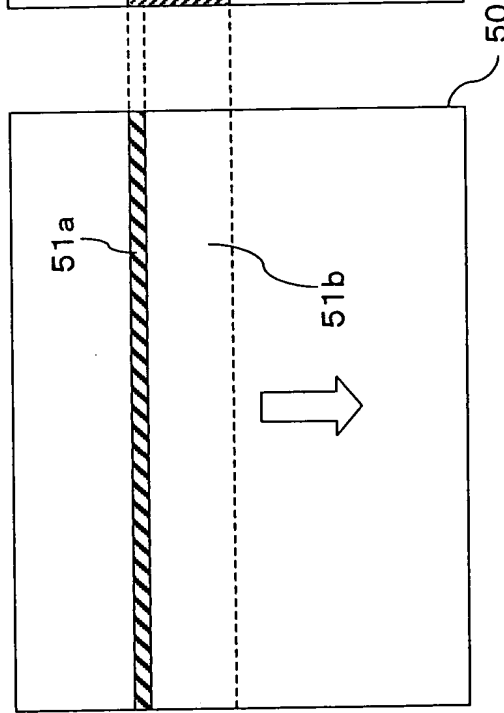
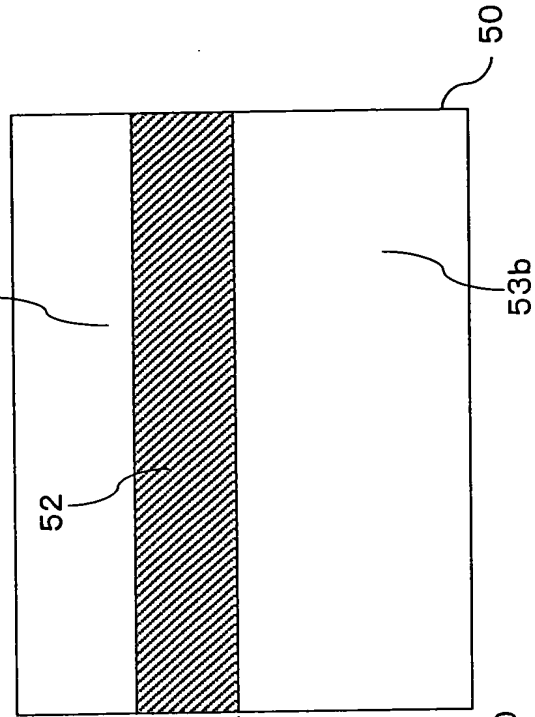
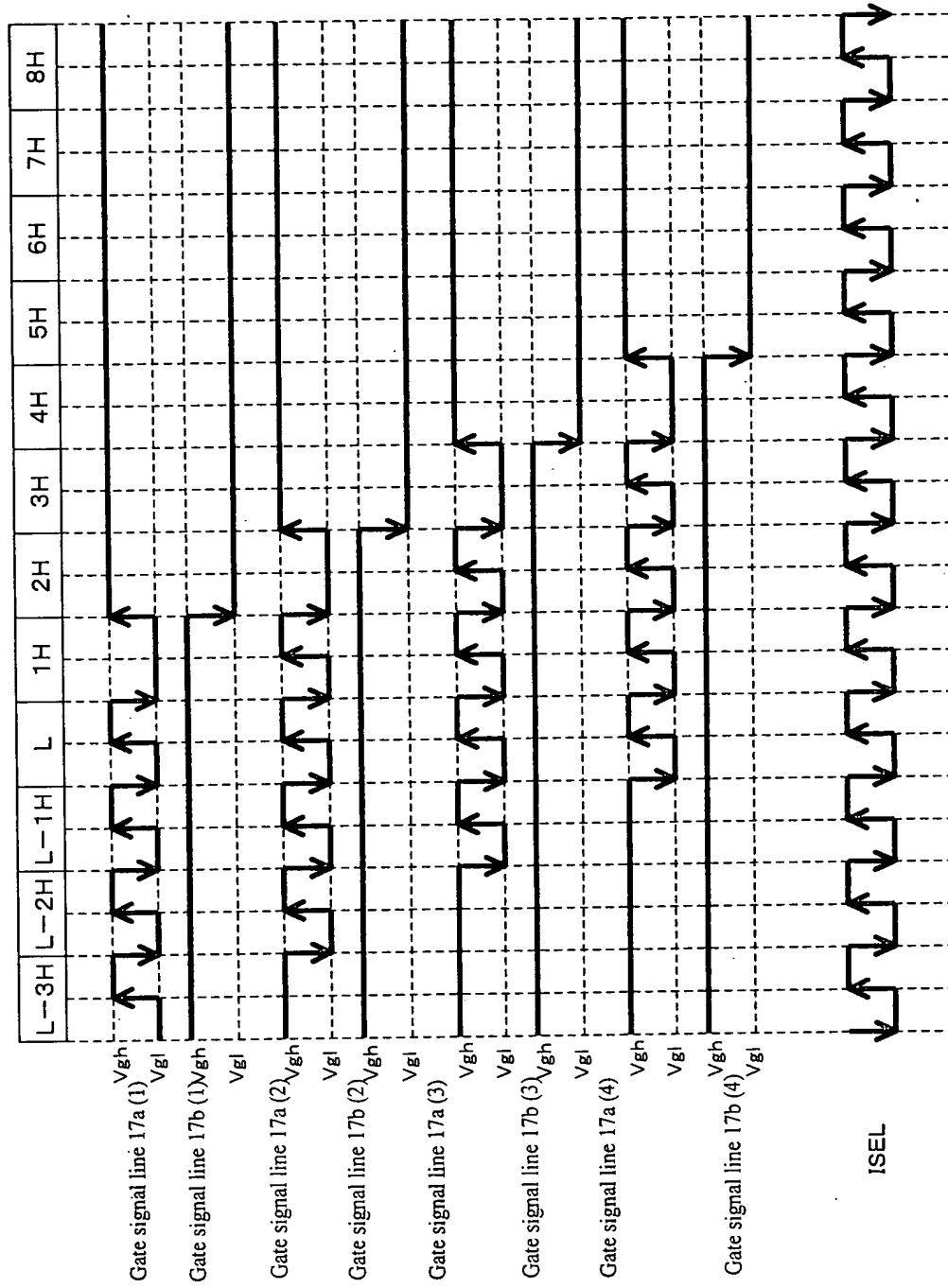


Fig. 30 (b2)



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Fig. 31



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Fig. 33 (a)

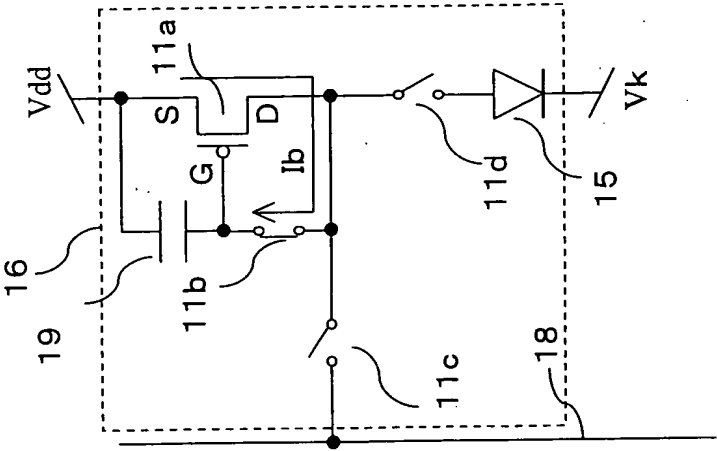


Fig. 33 (b)

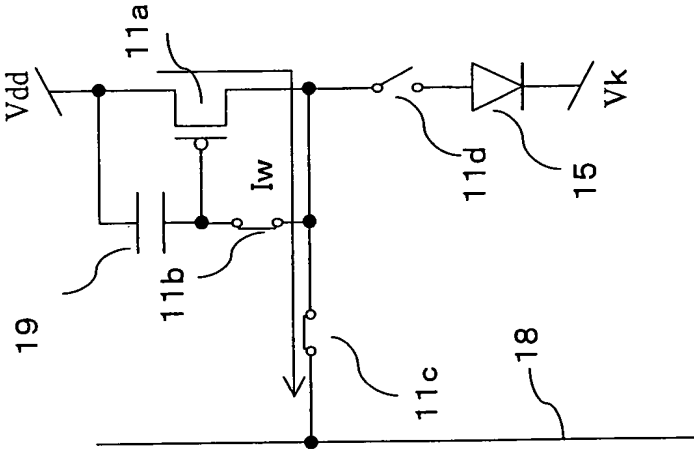
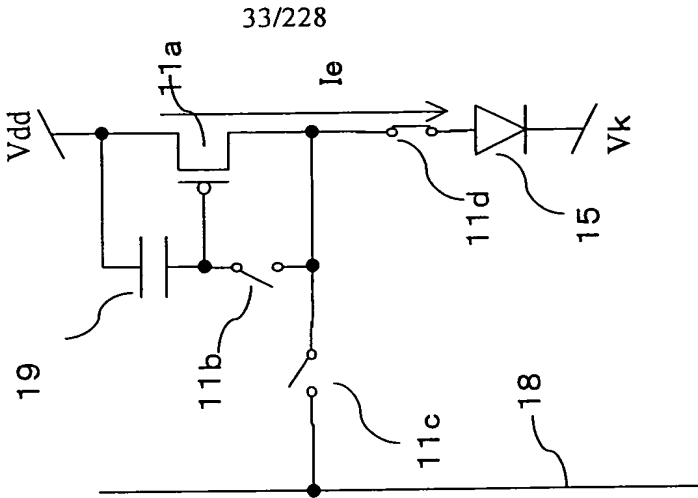


Fig. 33 (c)



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Fig. 34

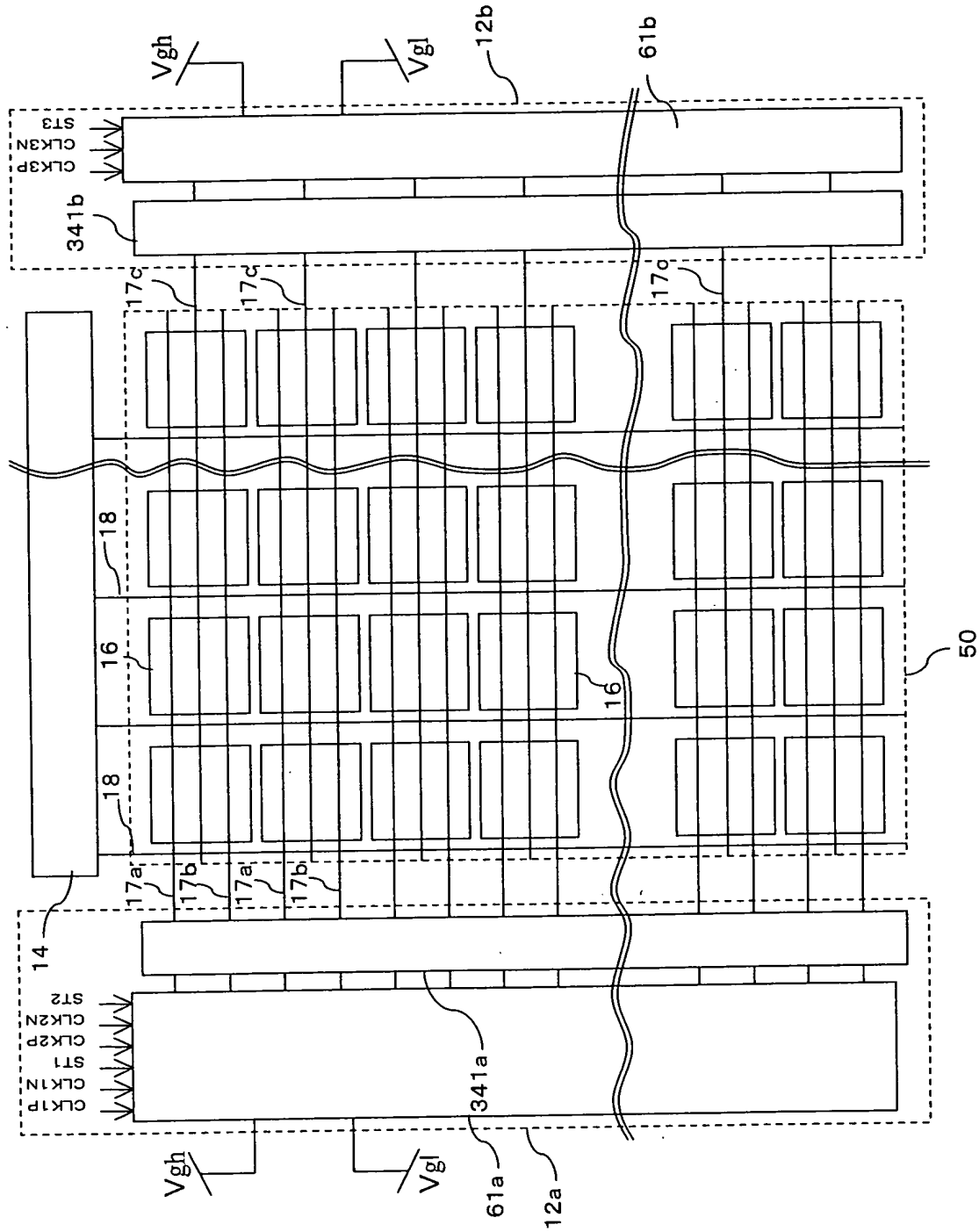


Fig. 35

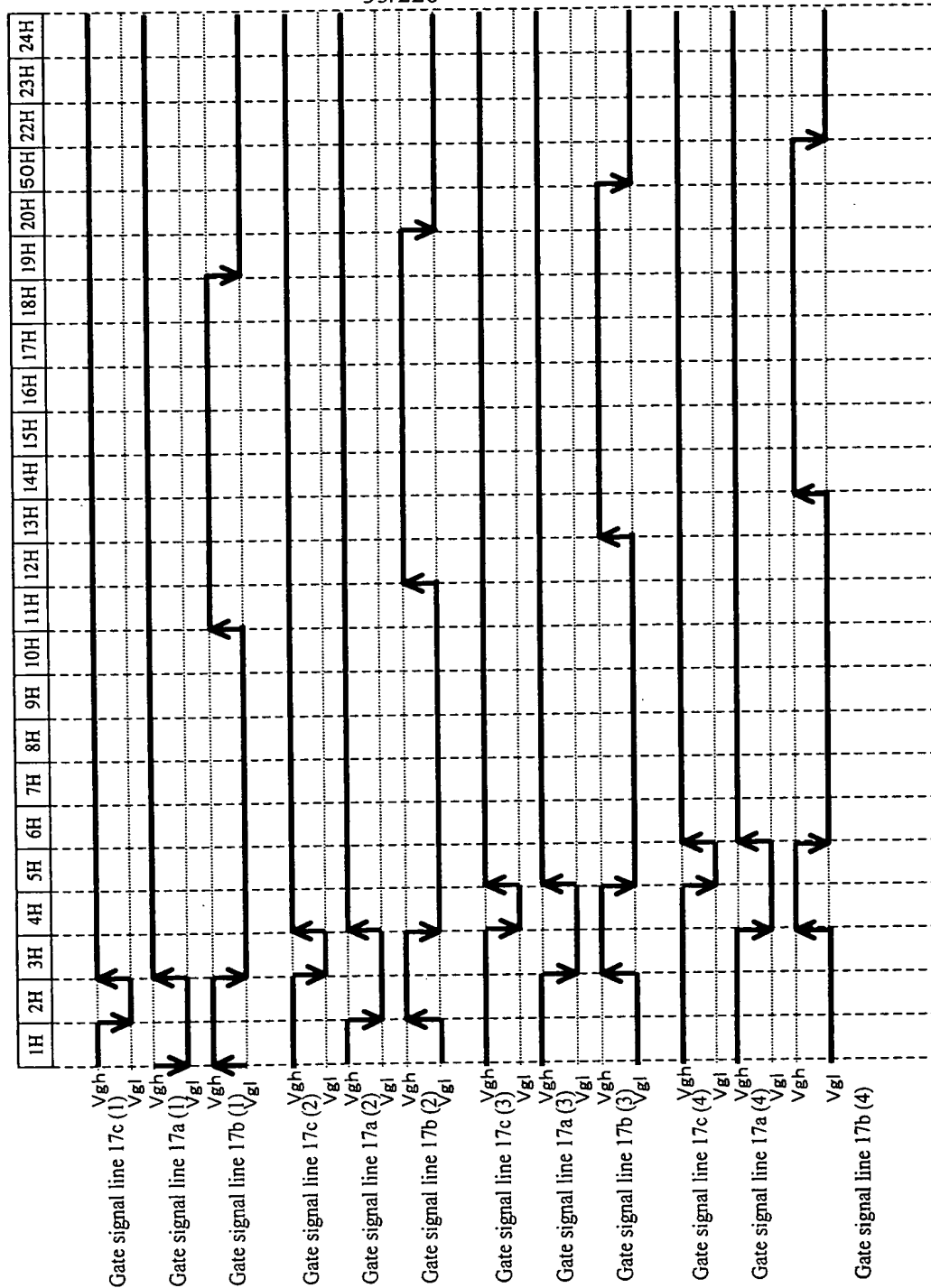
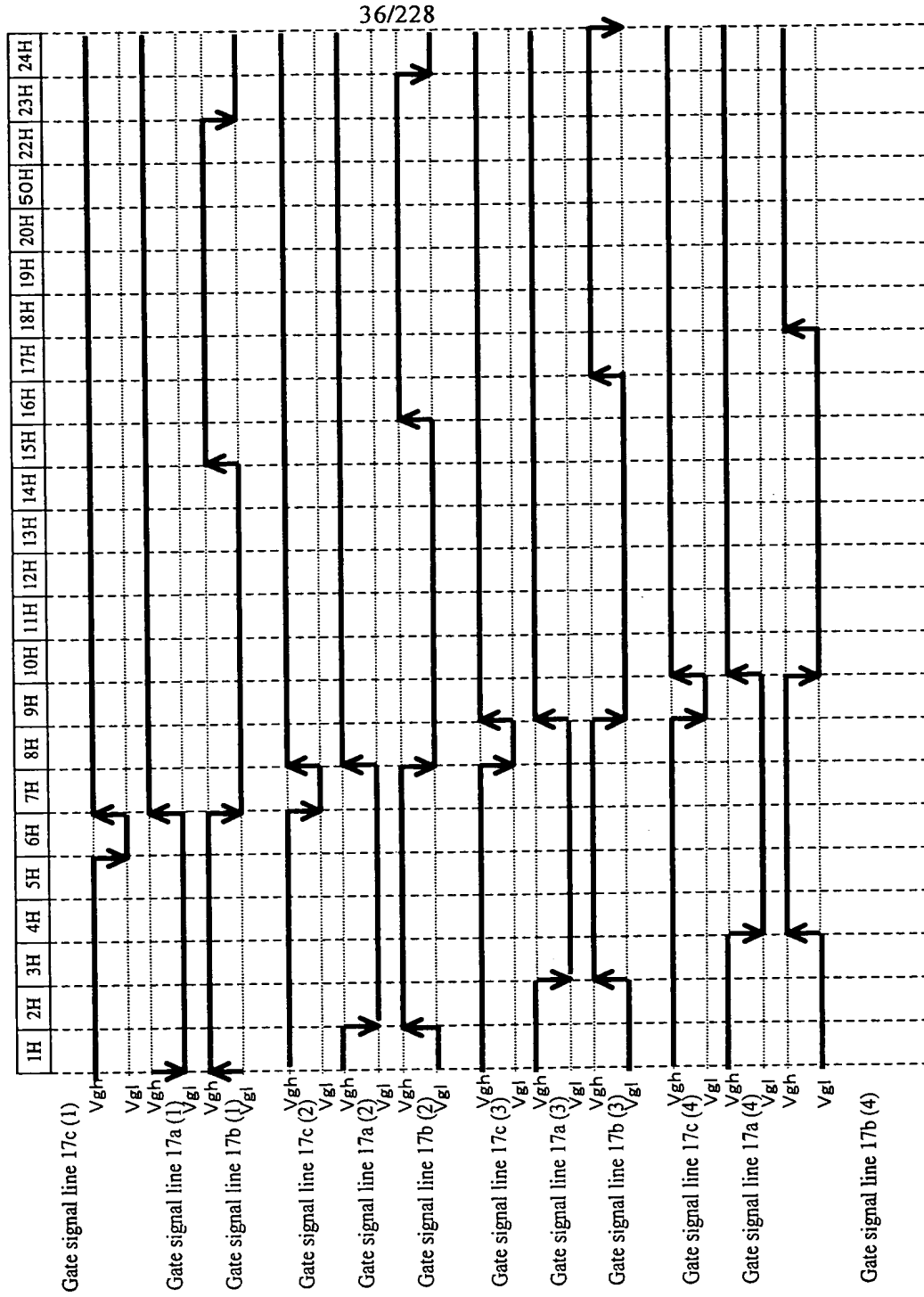


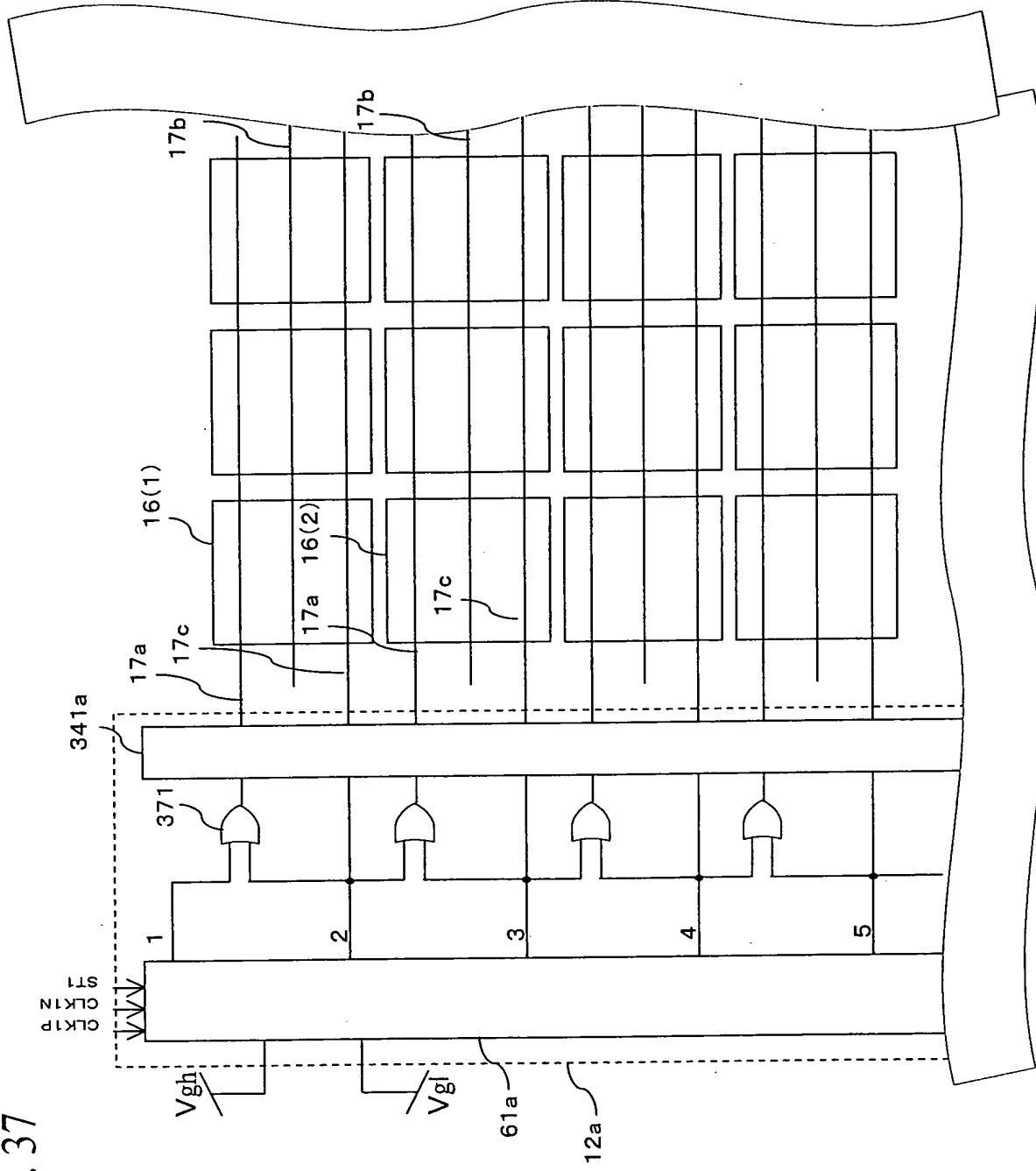
Fig. 36



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Fig. 37



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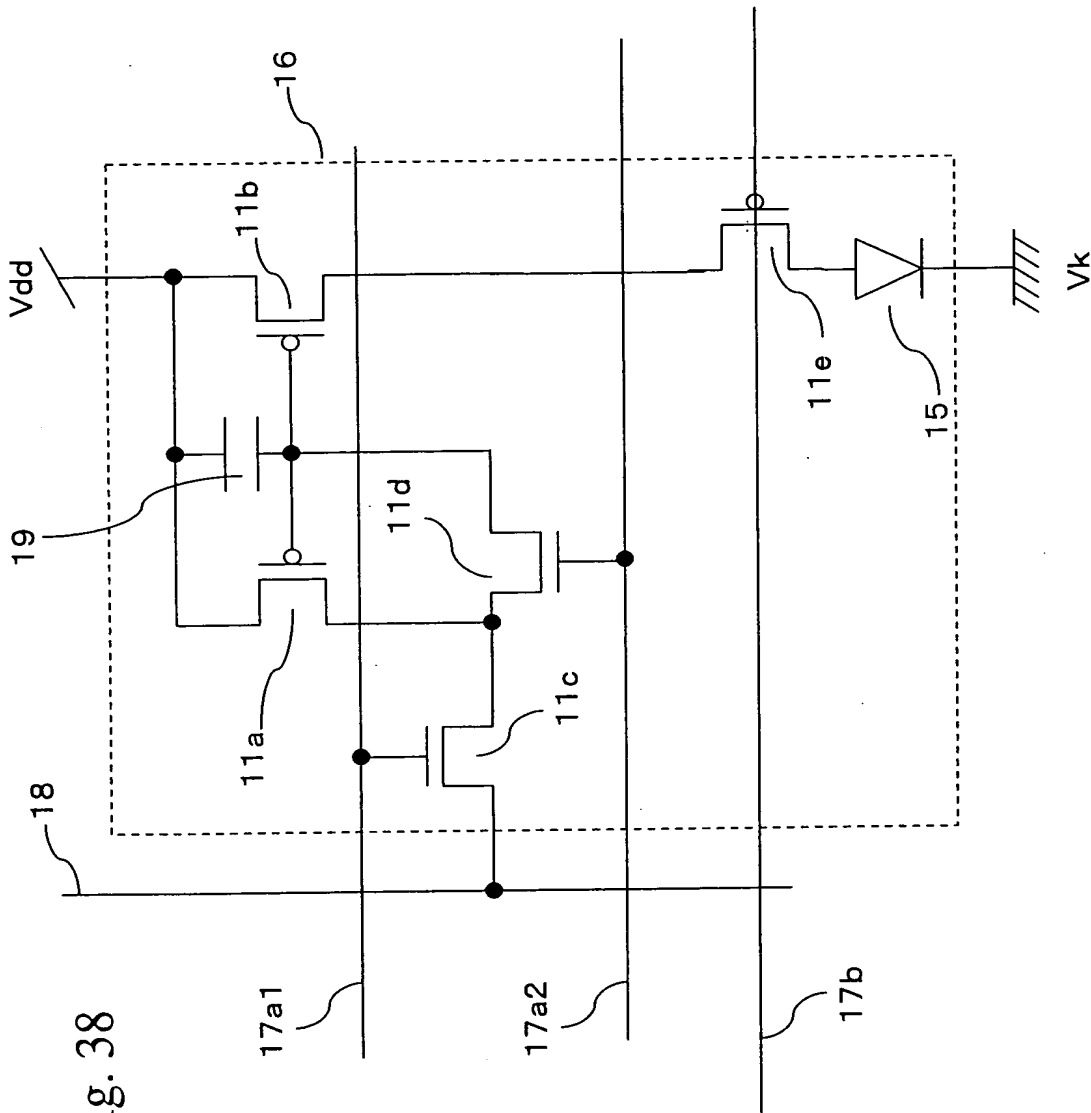


Fig. 38

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Fig. 39 (a)

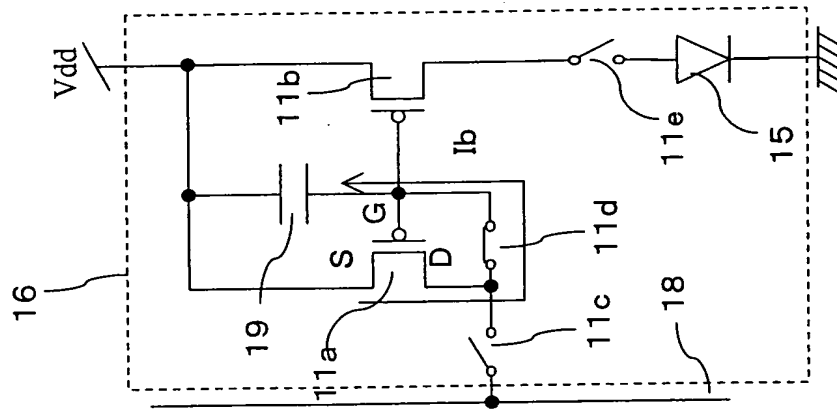


Fig. 39 (b)

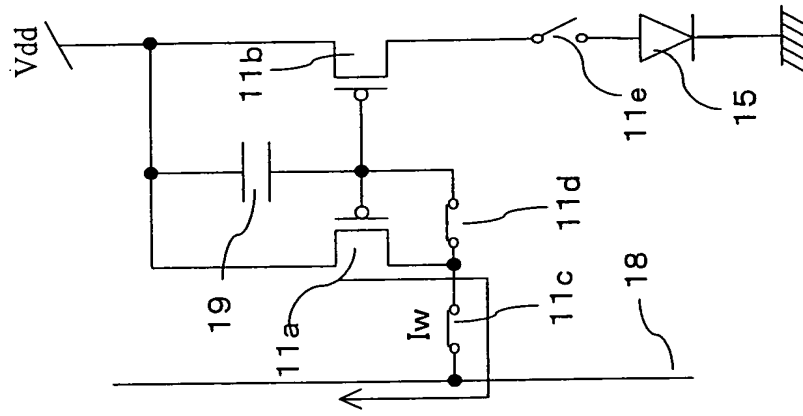
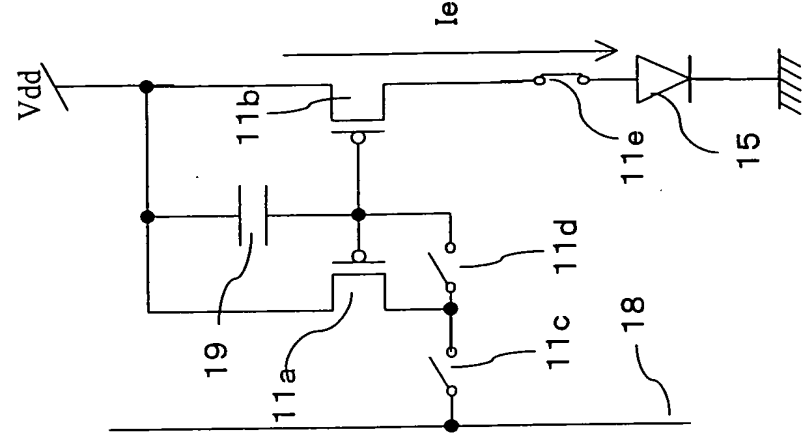
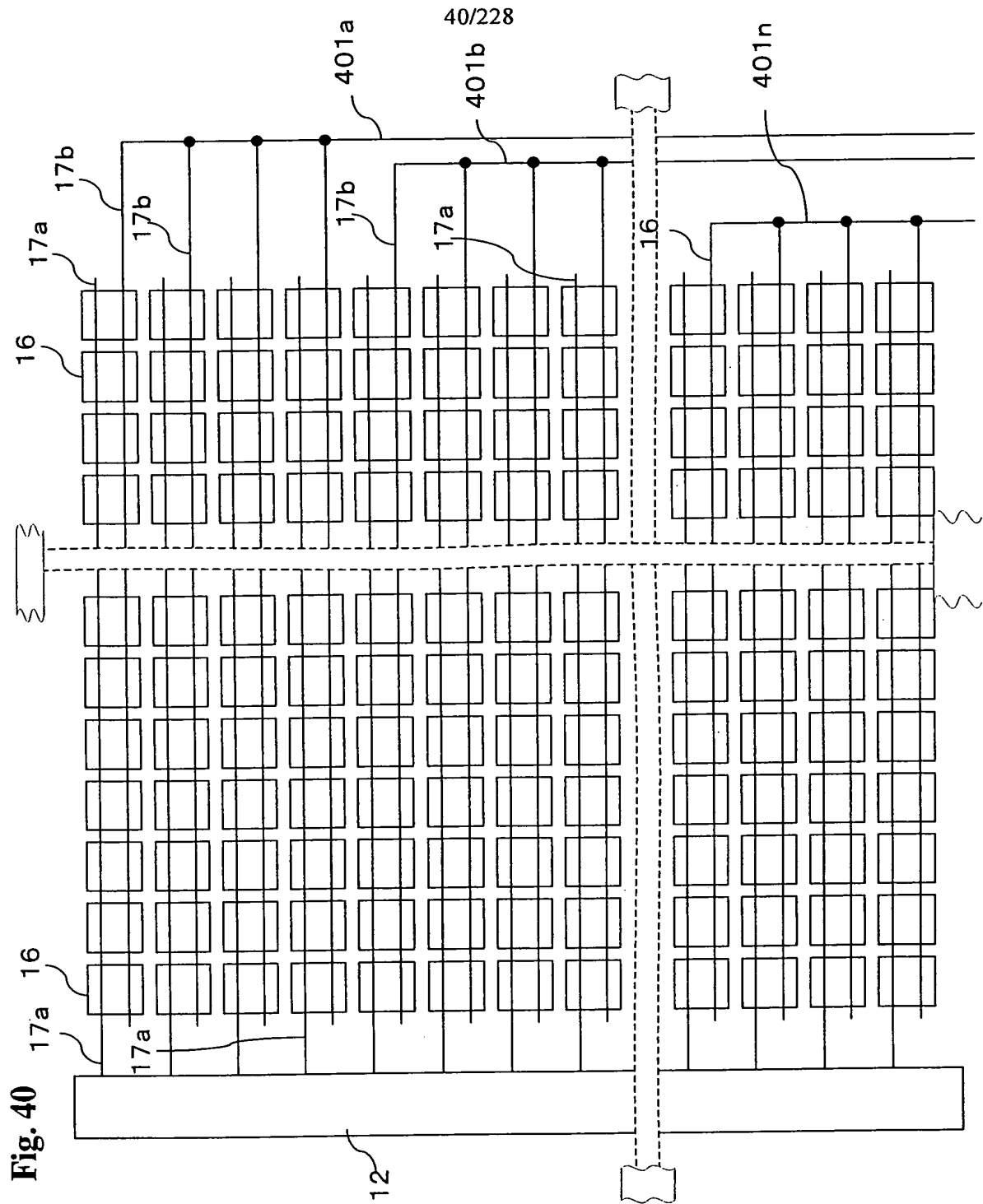


Fig. 39 (c)



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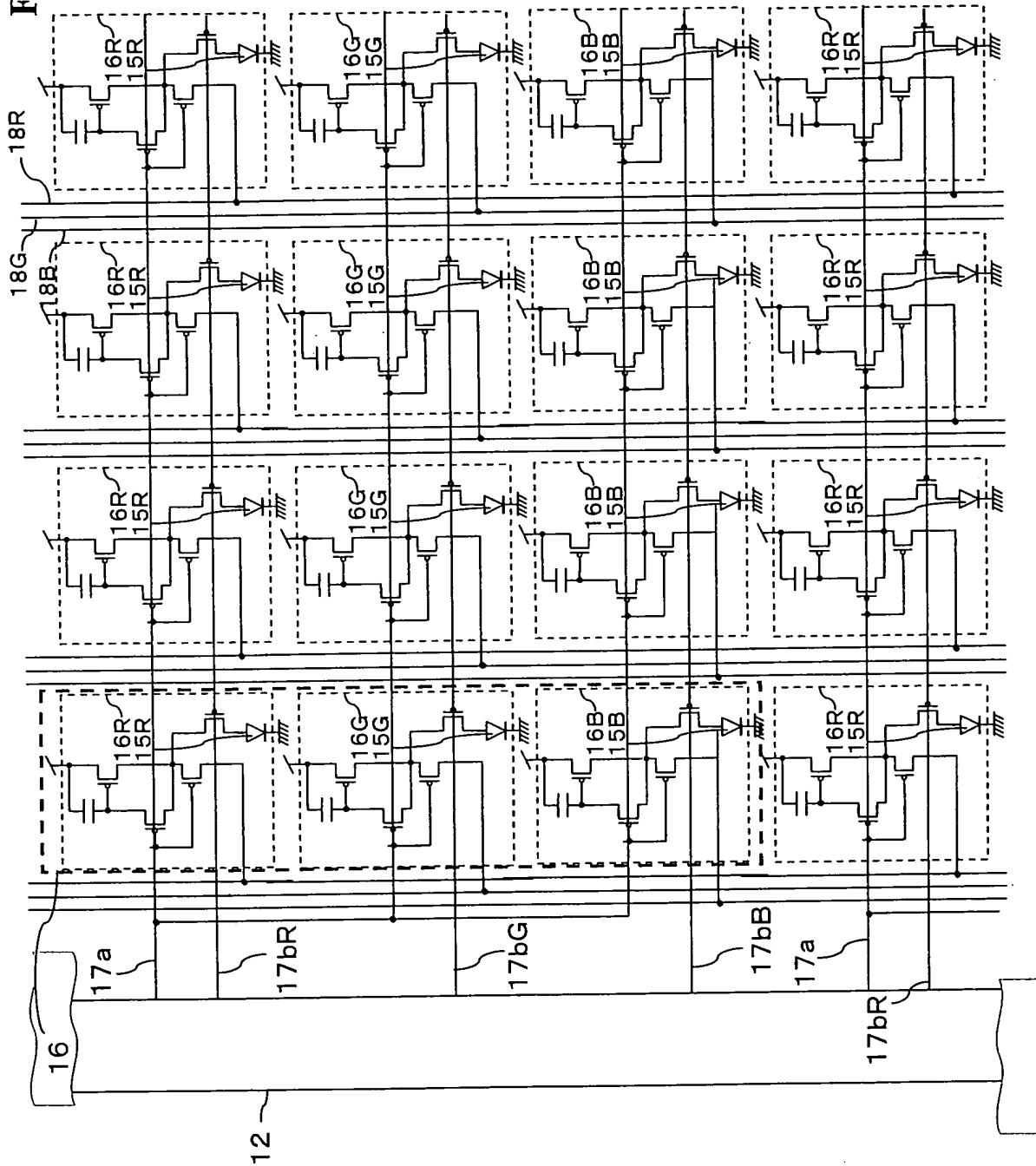


Fig. 42 (b)

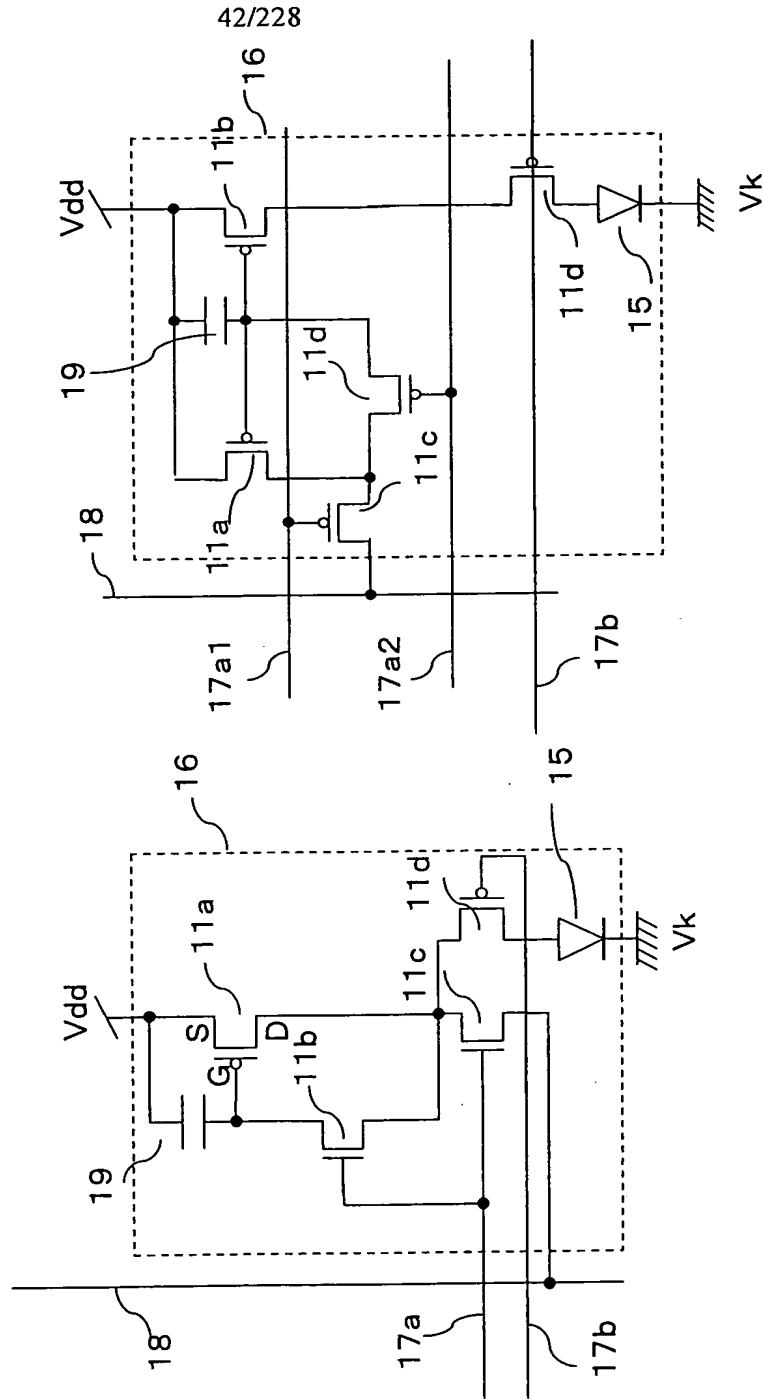


Fig. 42 (a)

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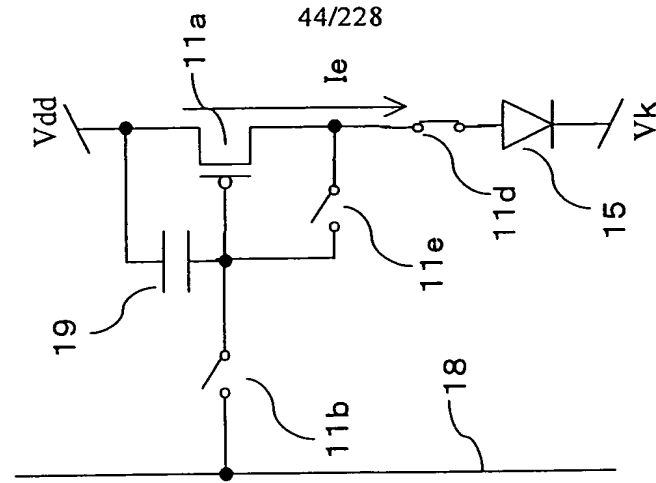


Fig. 44 (c)

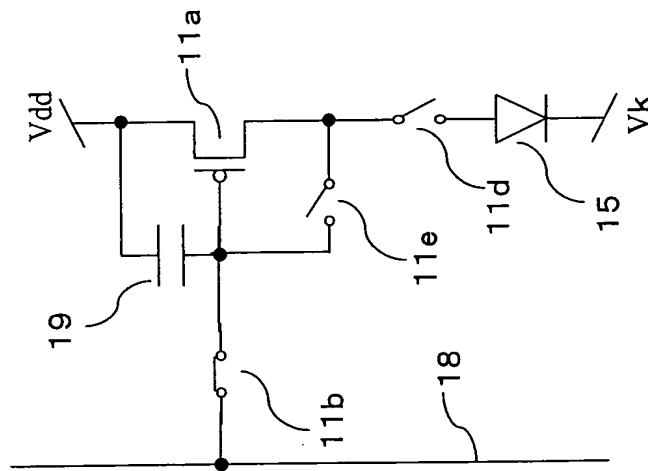


Fig. 44 (b)

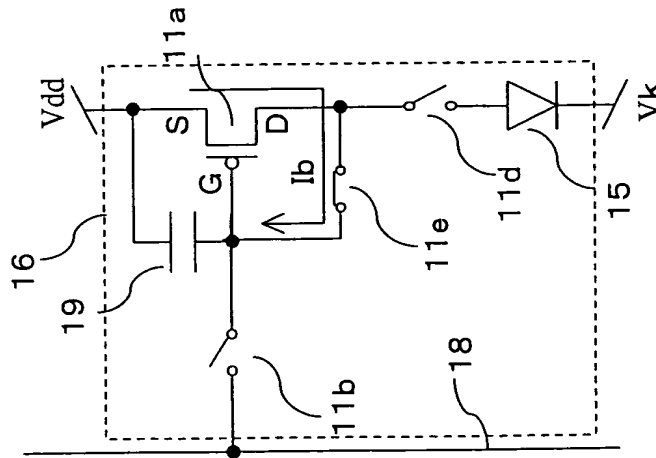
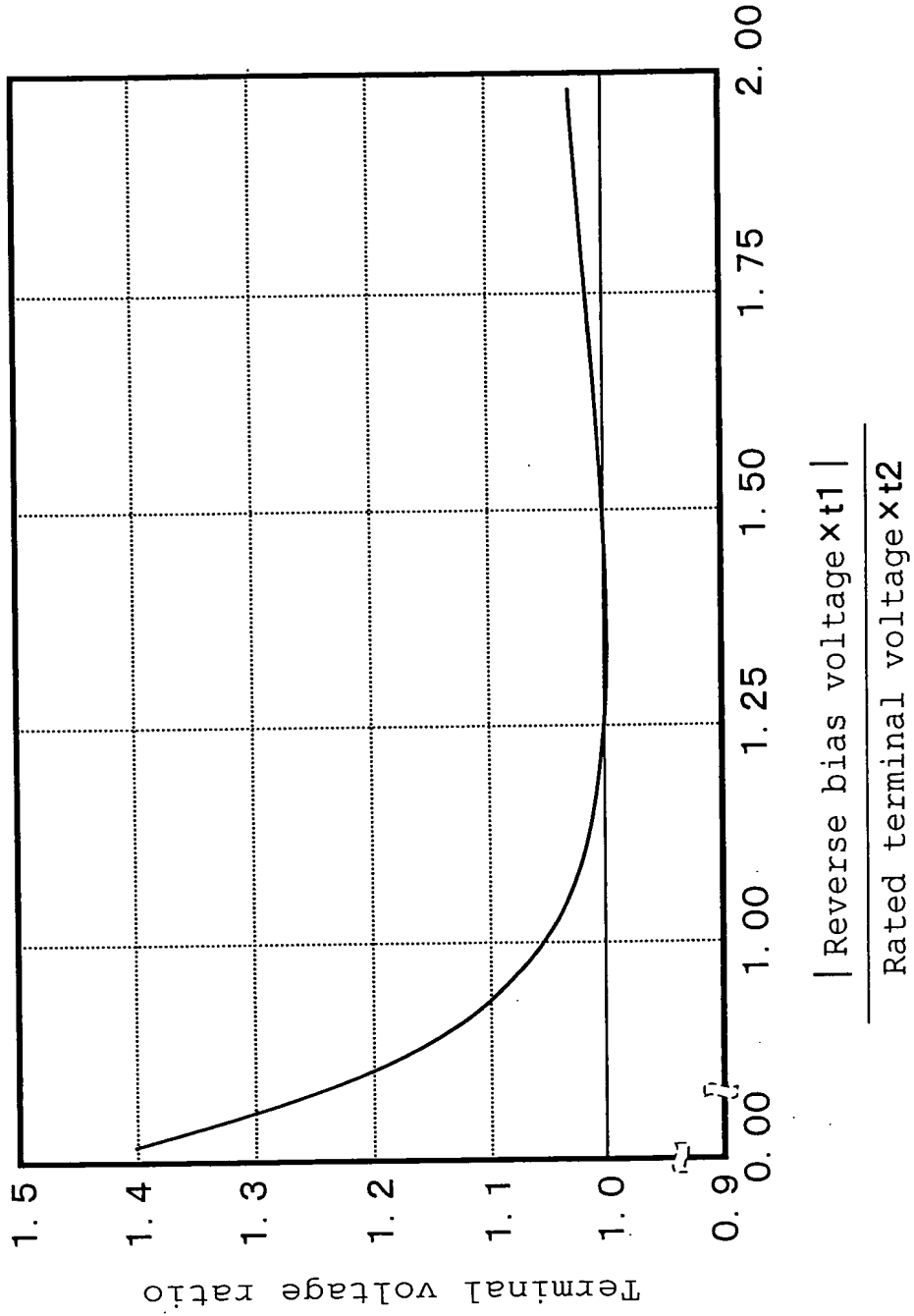


Fig. 44 (a)

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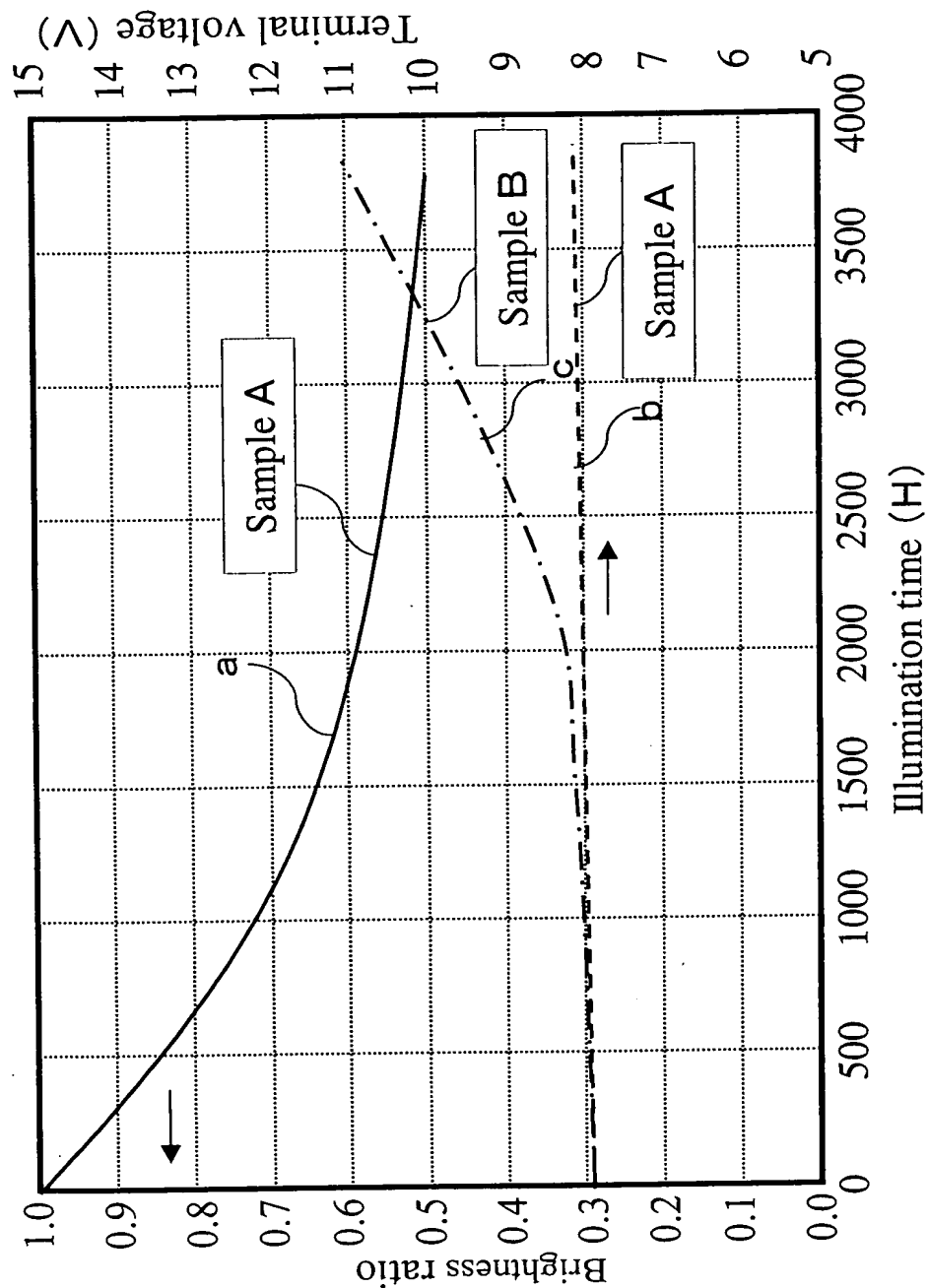
Fig. 45



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Fig. 46



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Fig. 47
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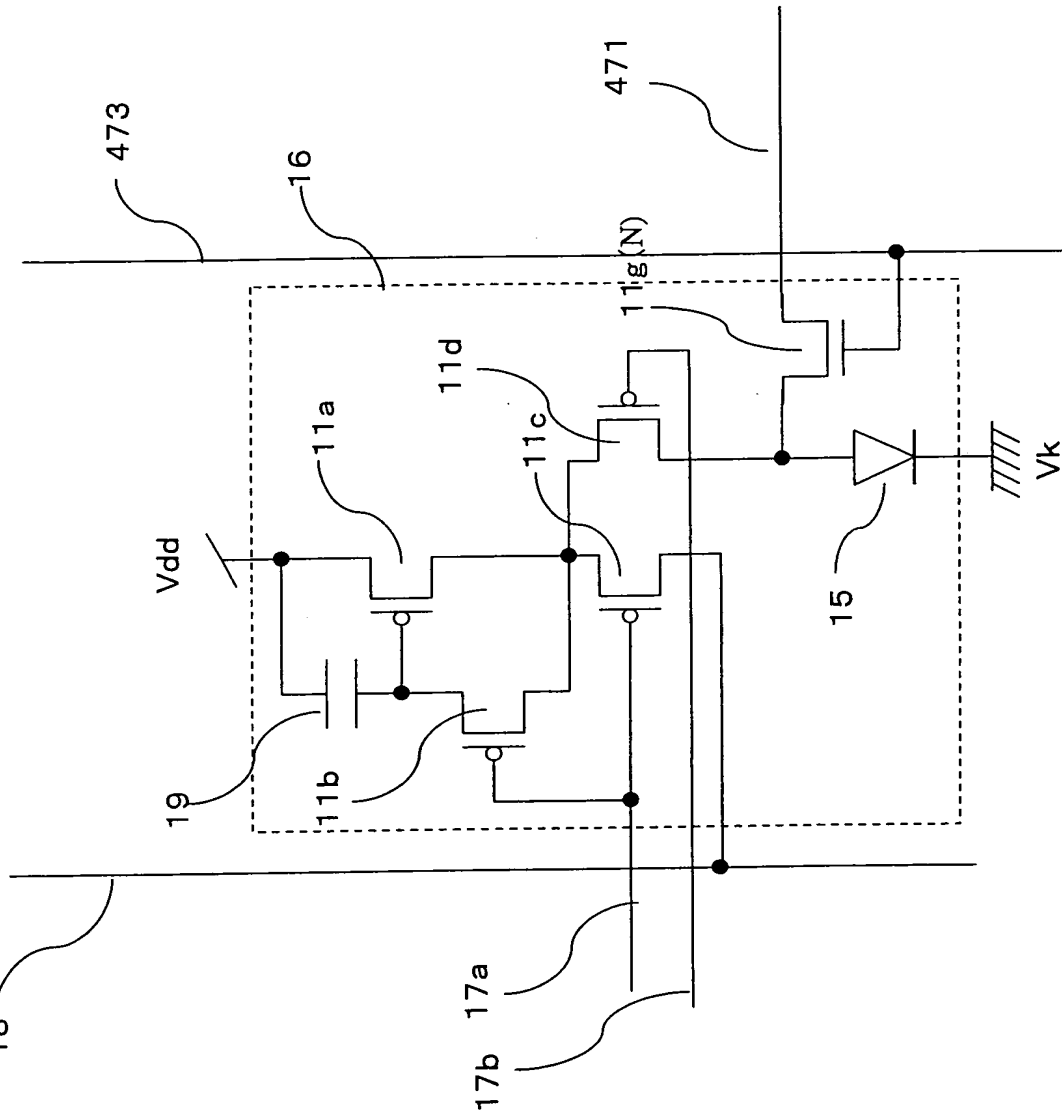
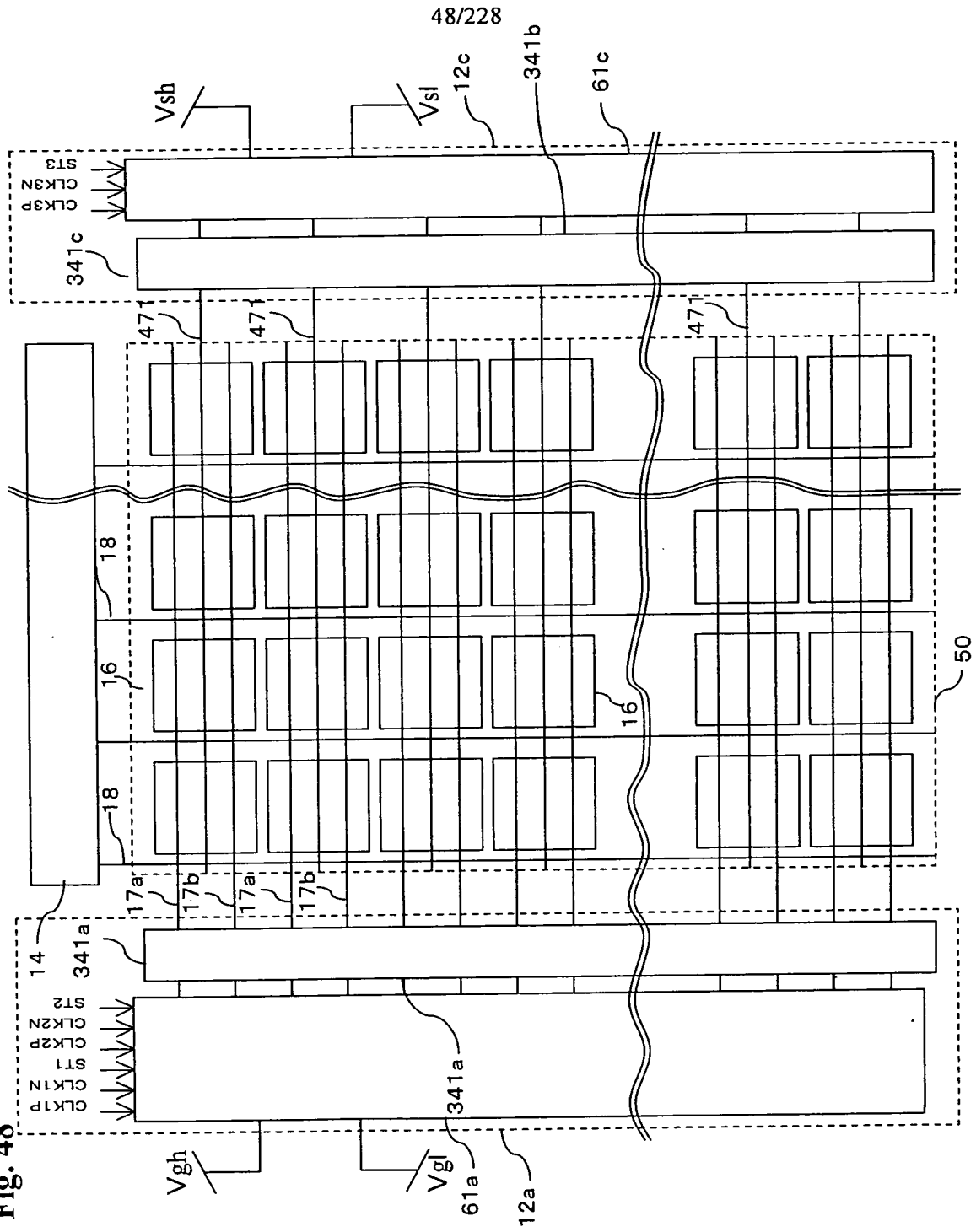
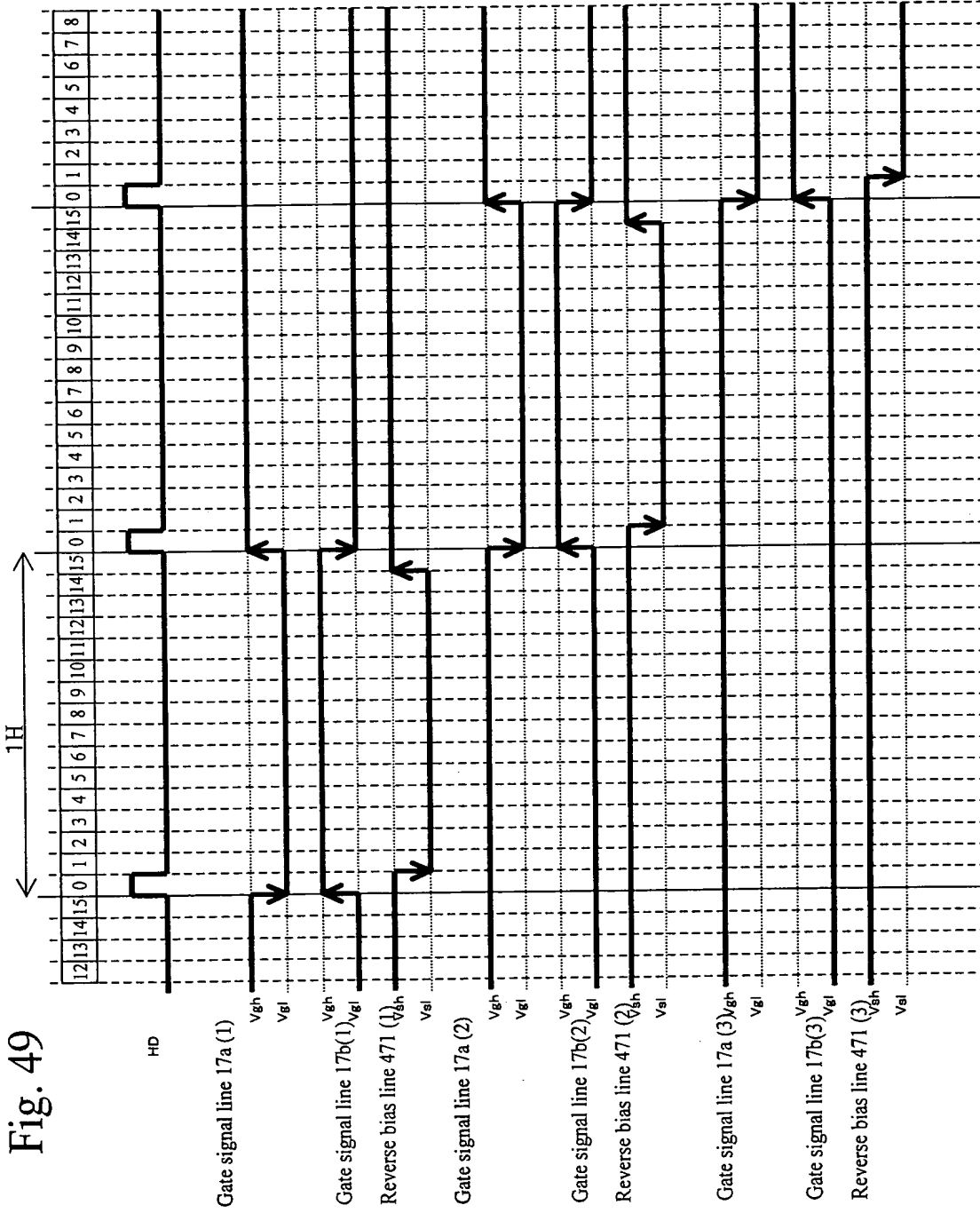


Fig. 48

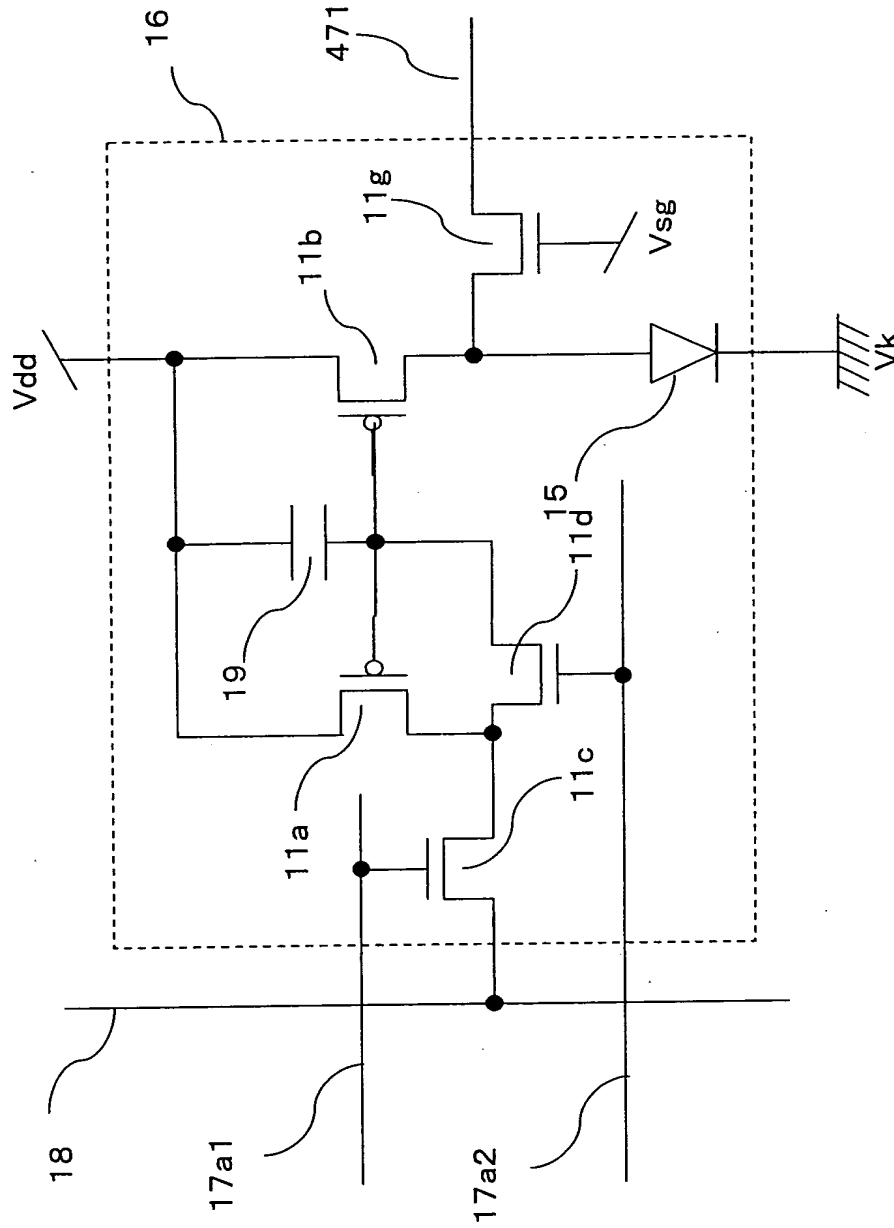


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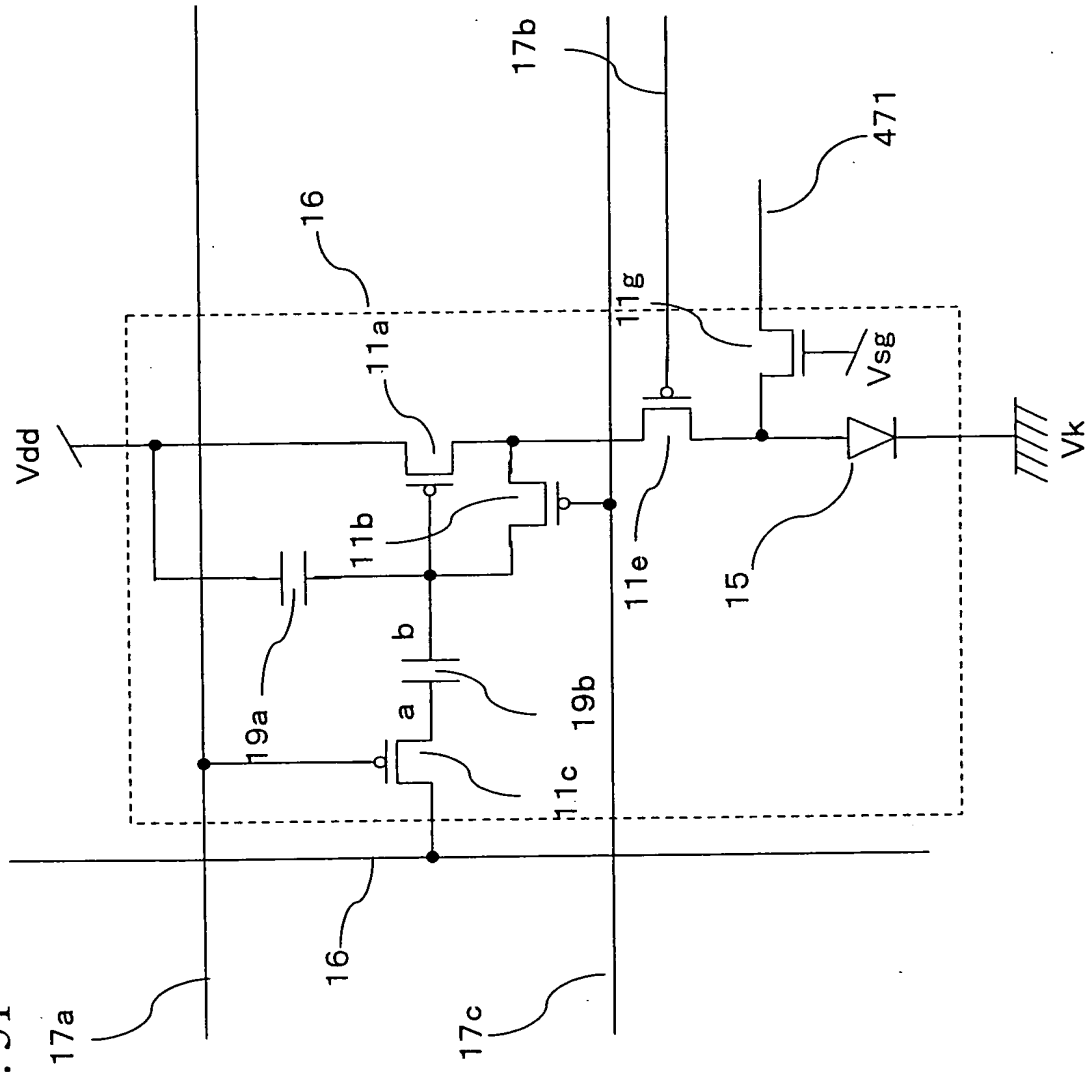
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Fig. 50



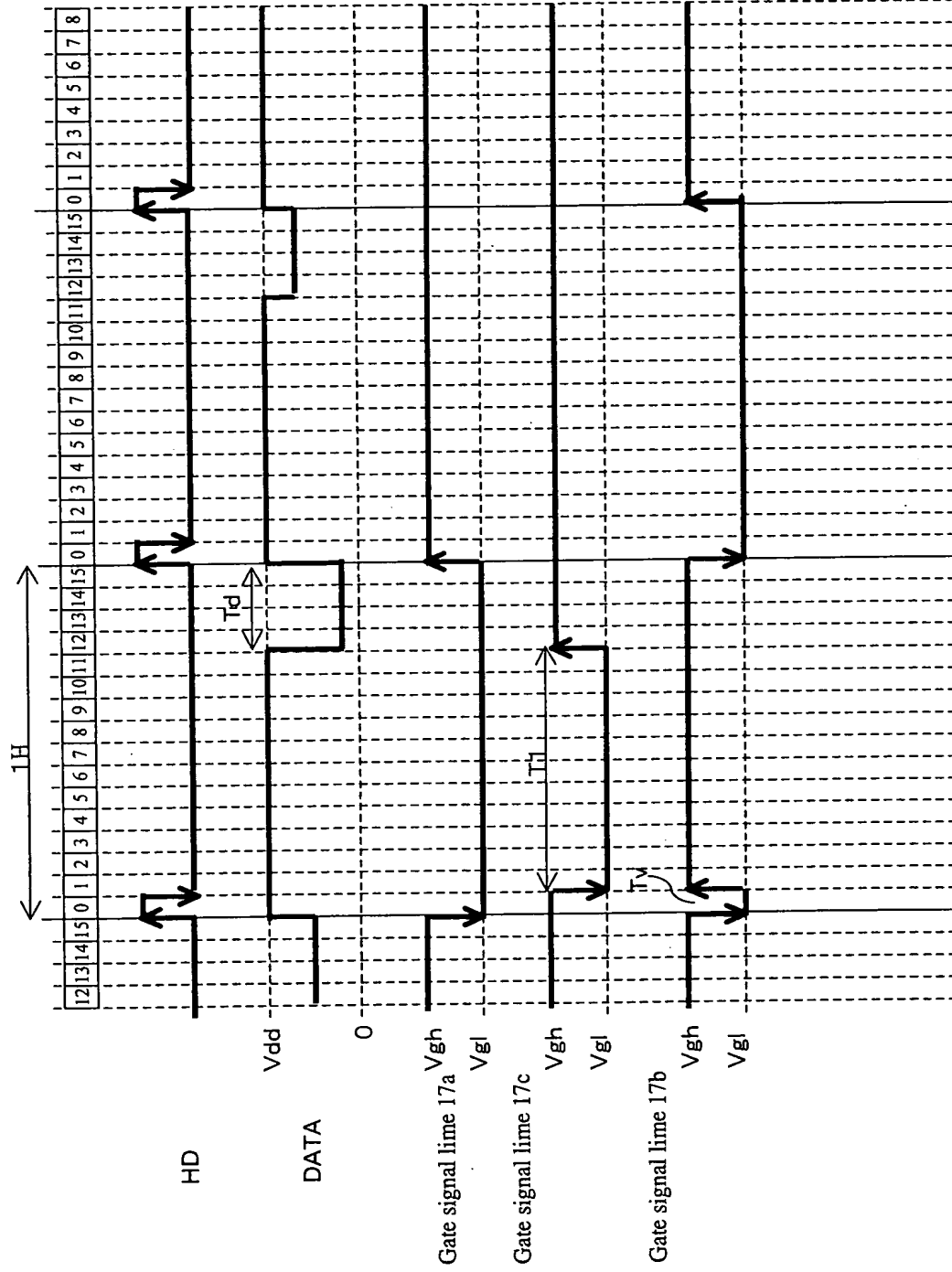
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Fig. 51



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Fig. 52



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Fig. 53 (b)

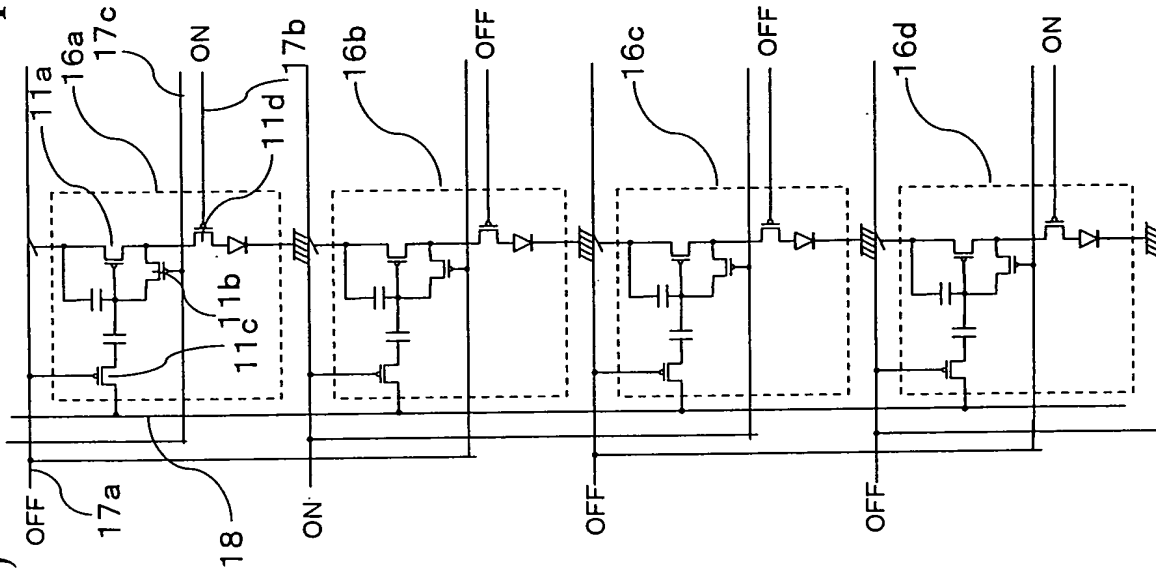
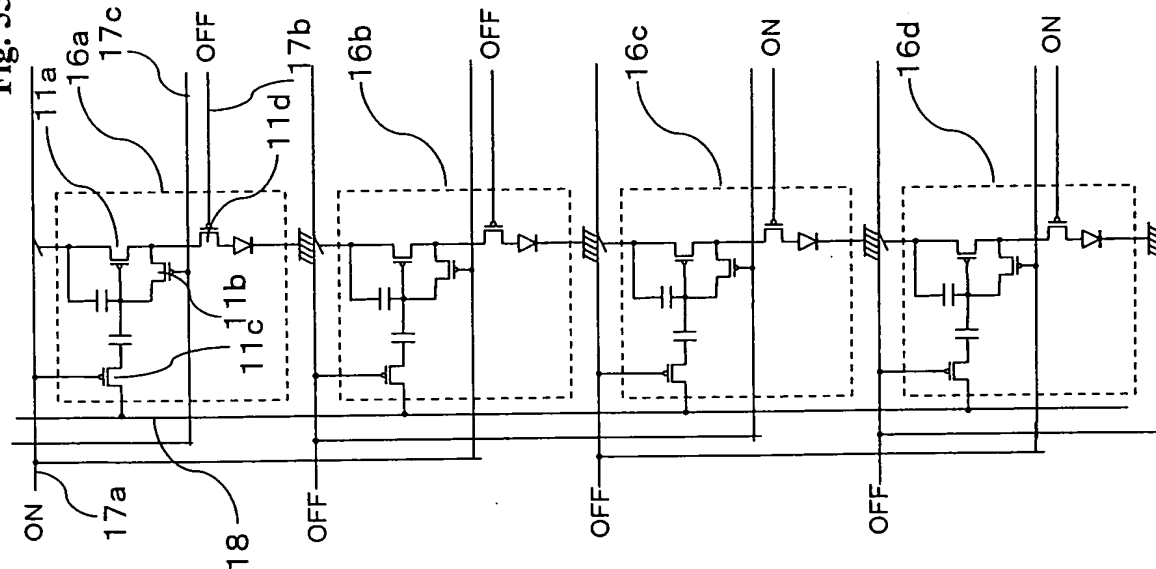
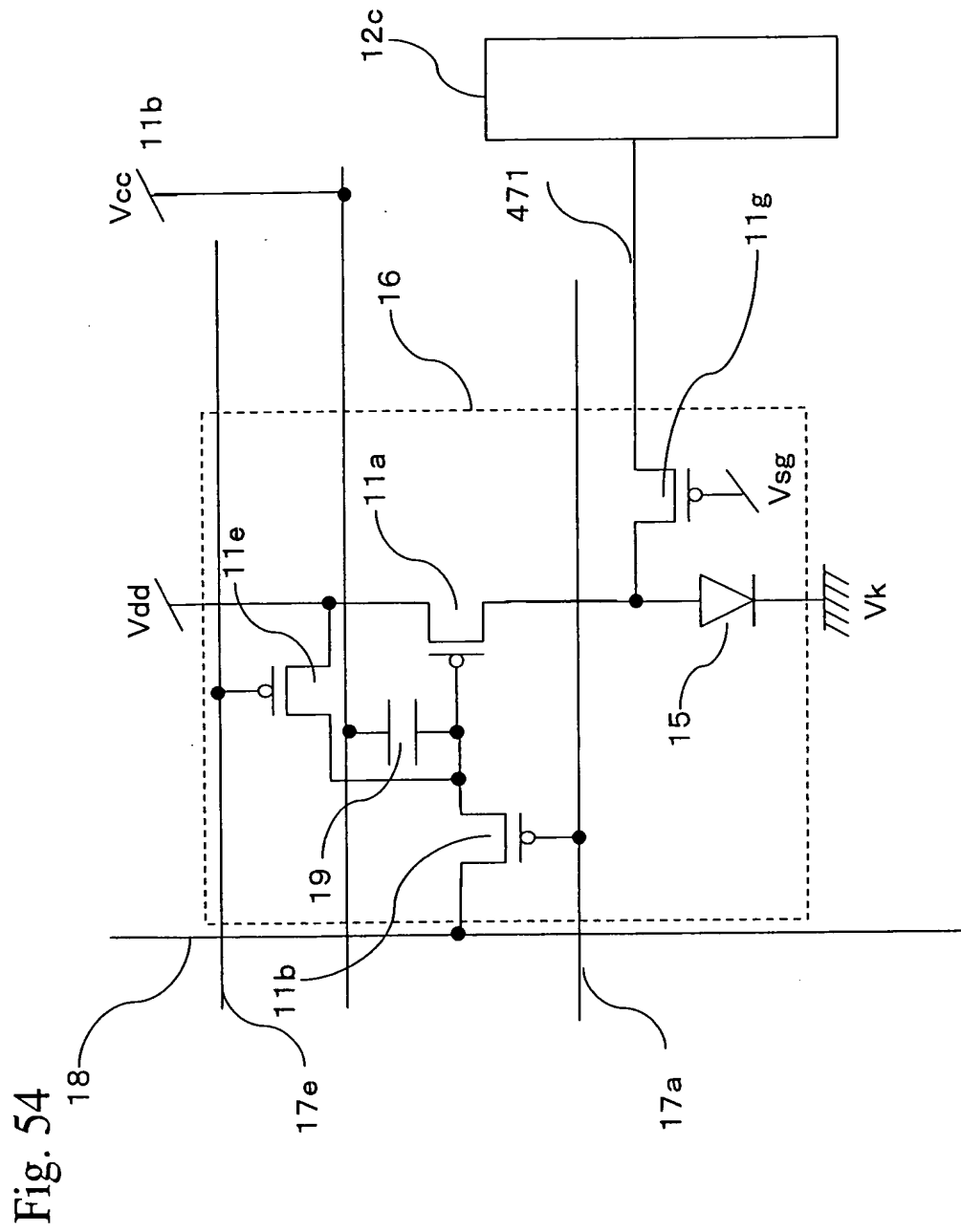


Fig. 53 (a)



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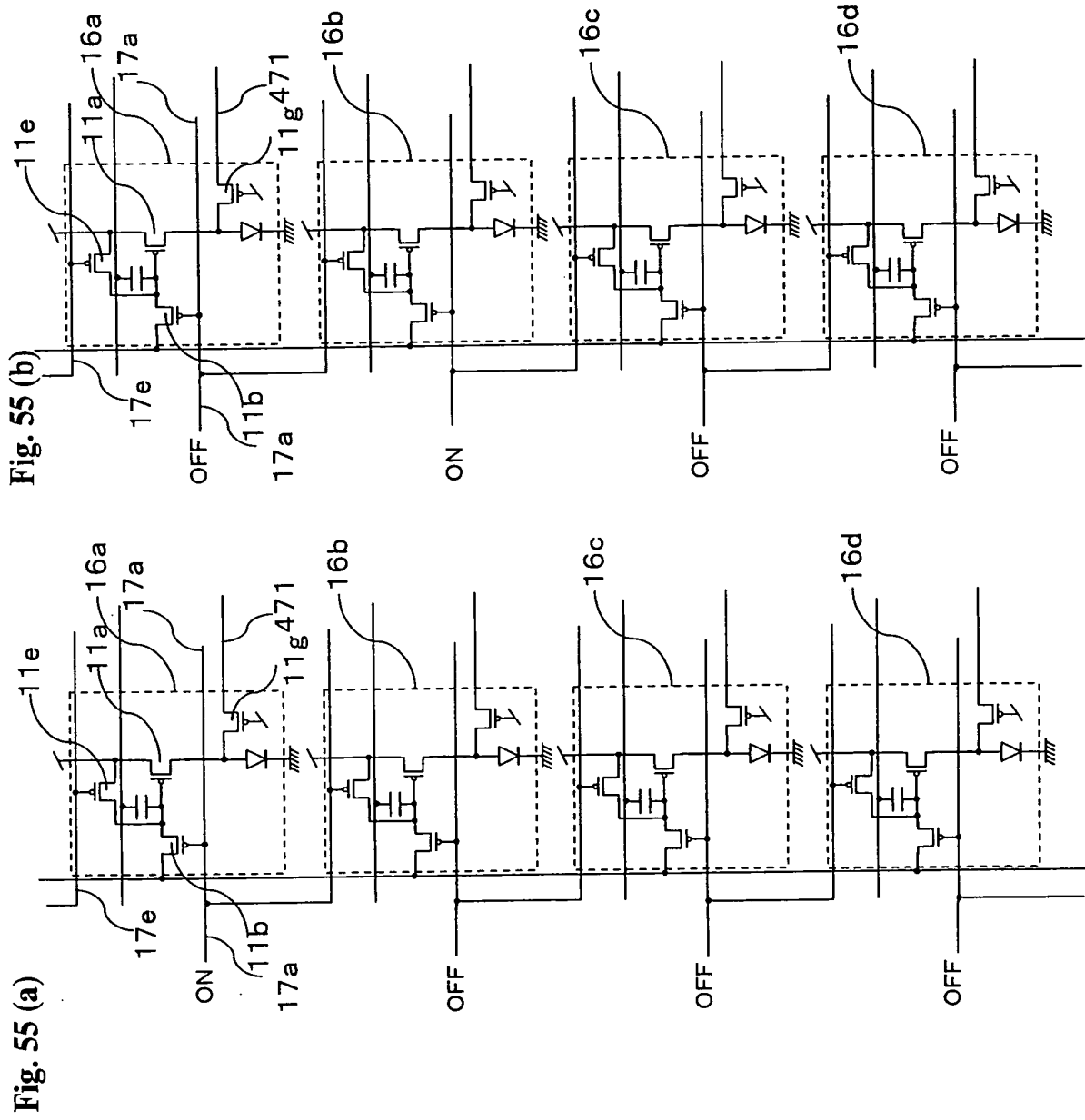


Fig. 56 (b)

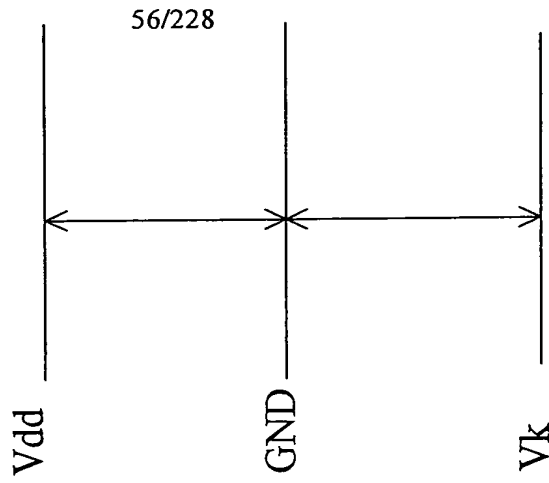
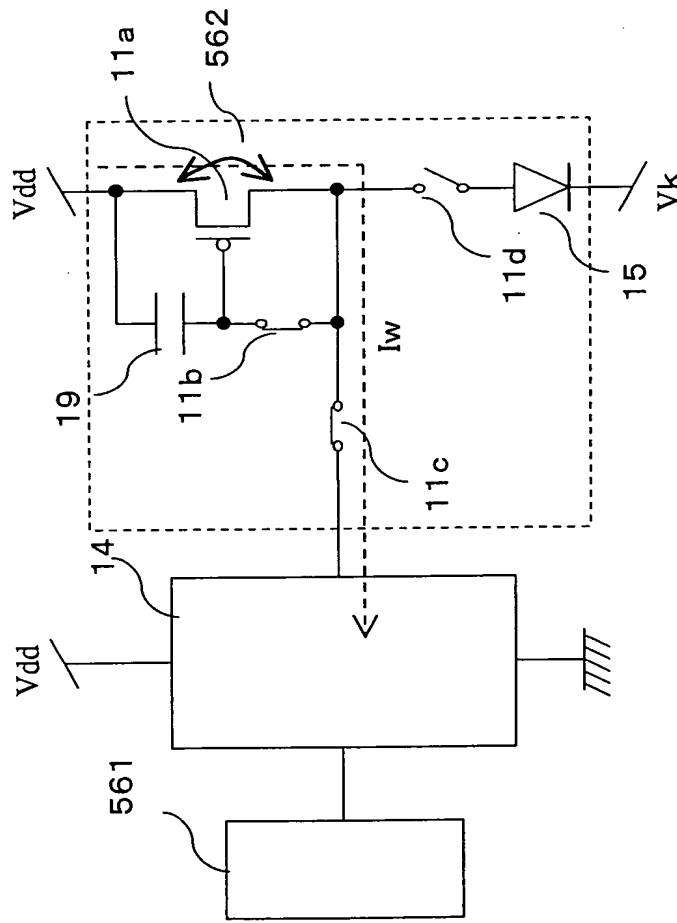
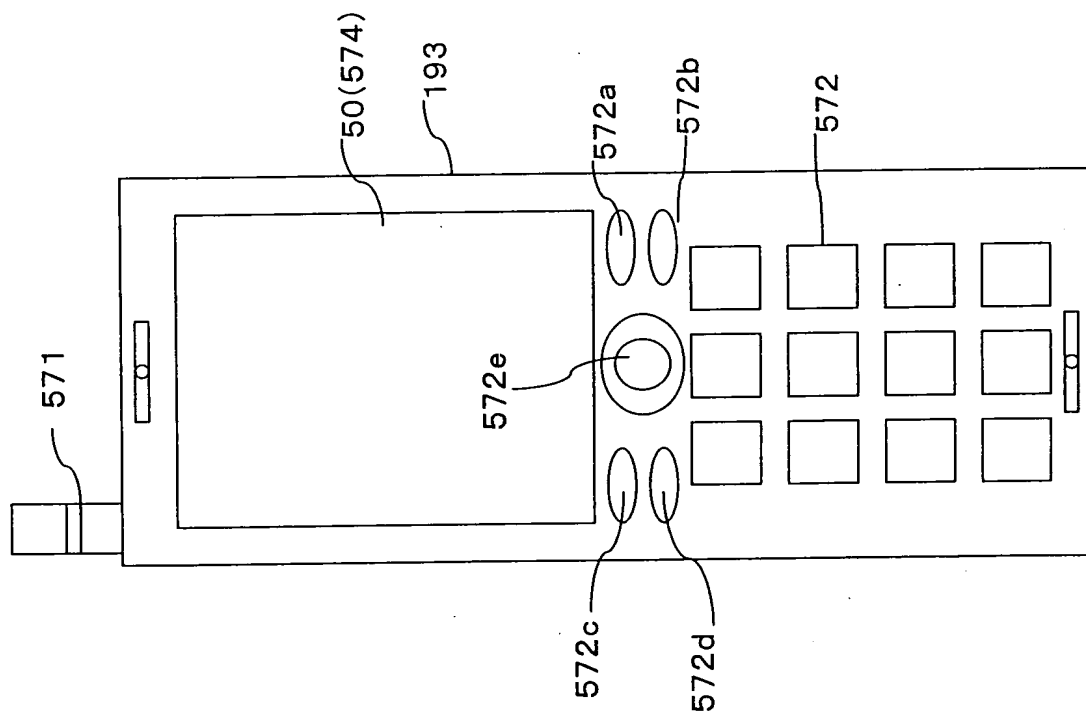


Fig. 56 (a)



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Fig. 57



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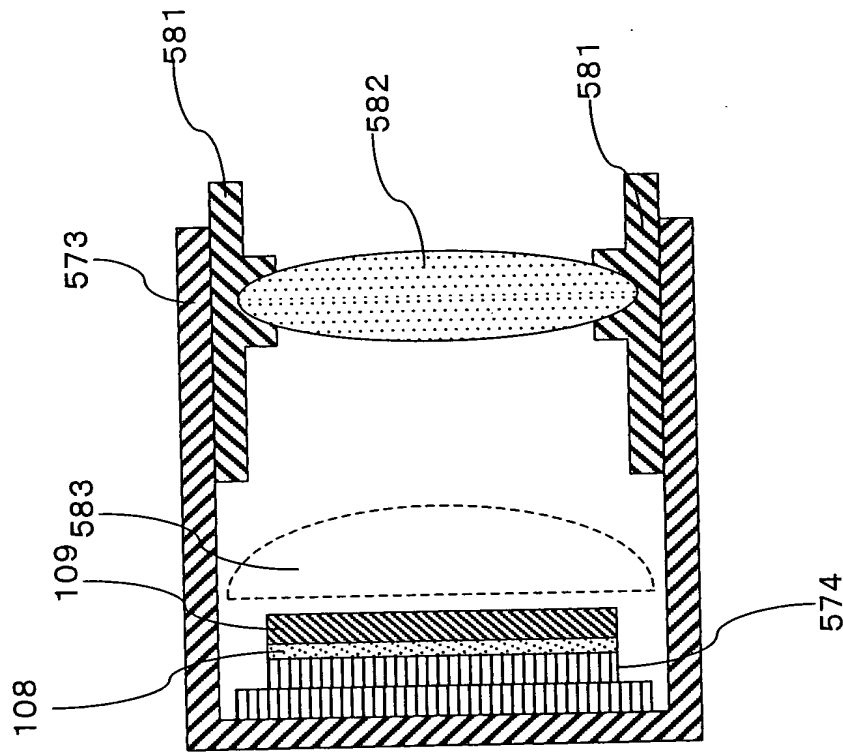
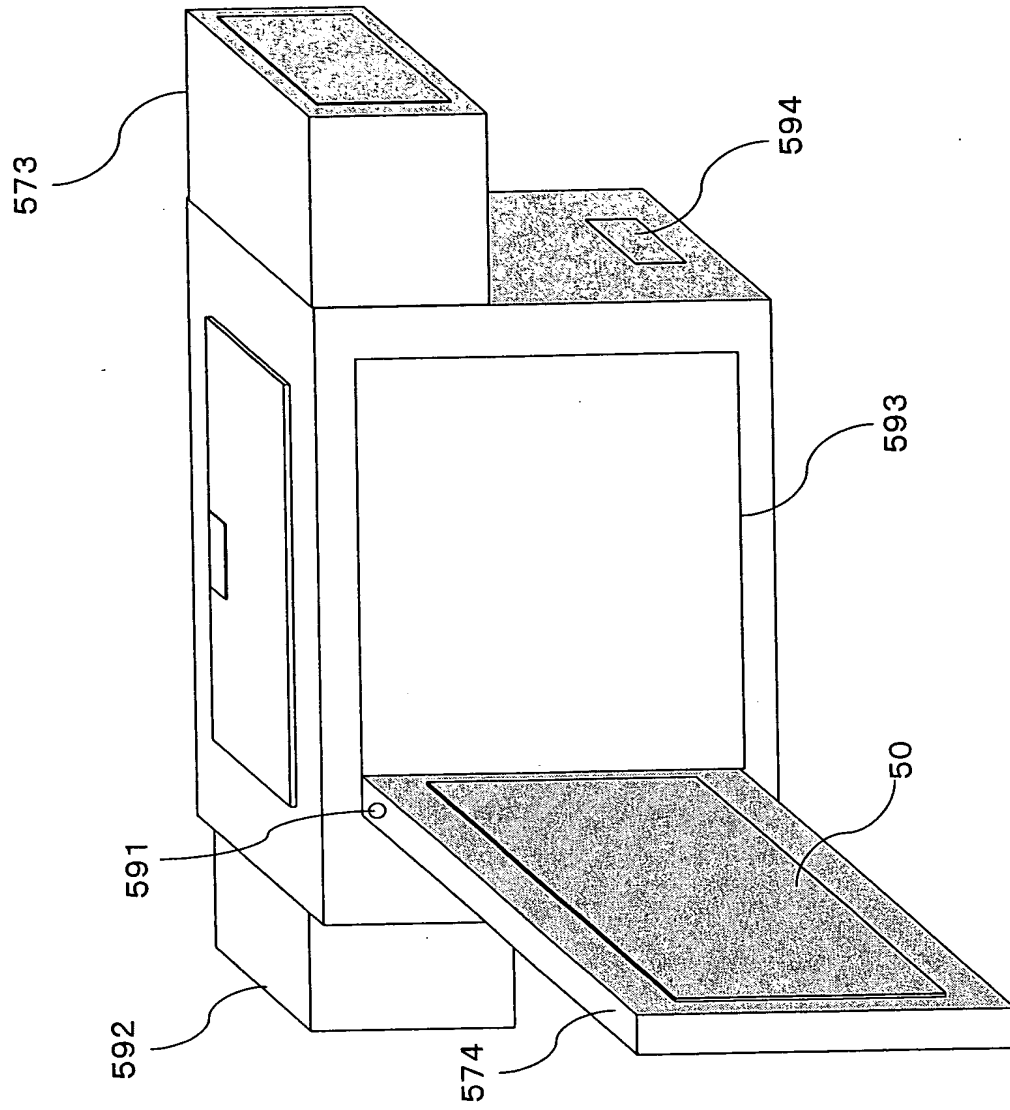


Fig. 58

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Fig. 59



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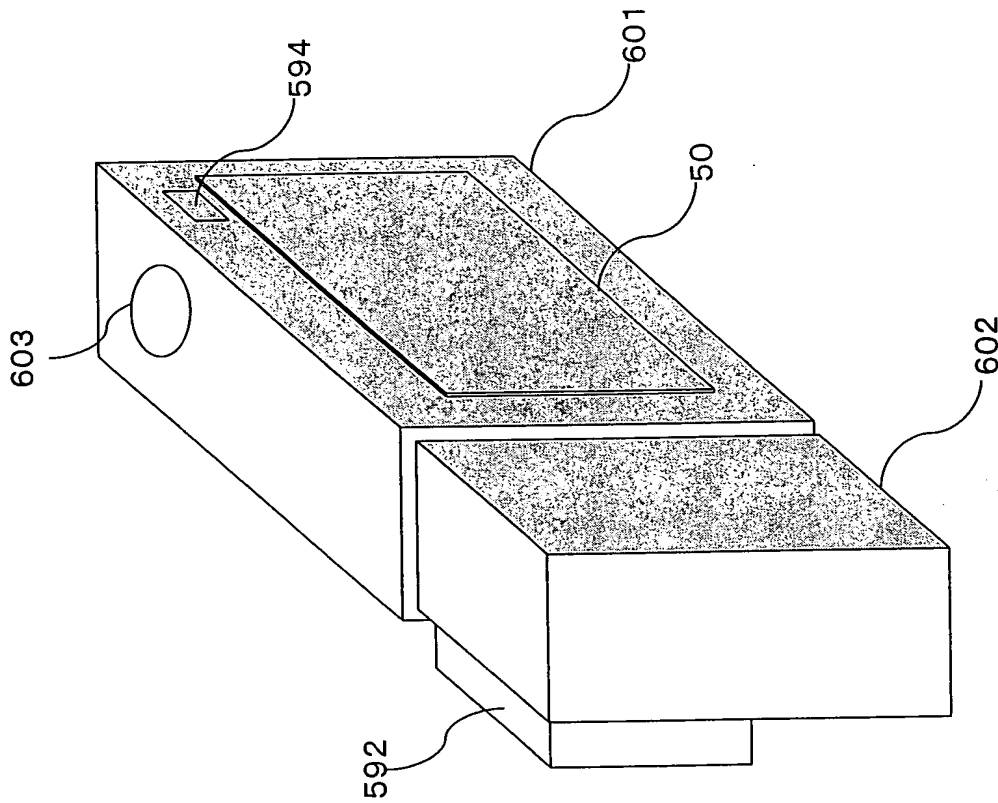


Fig. 60

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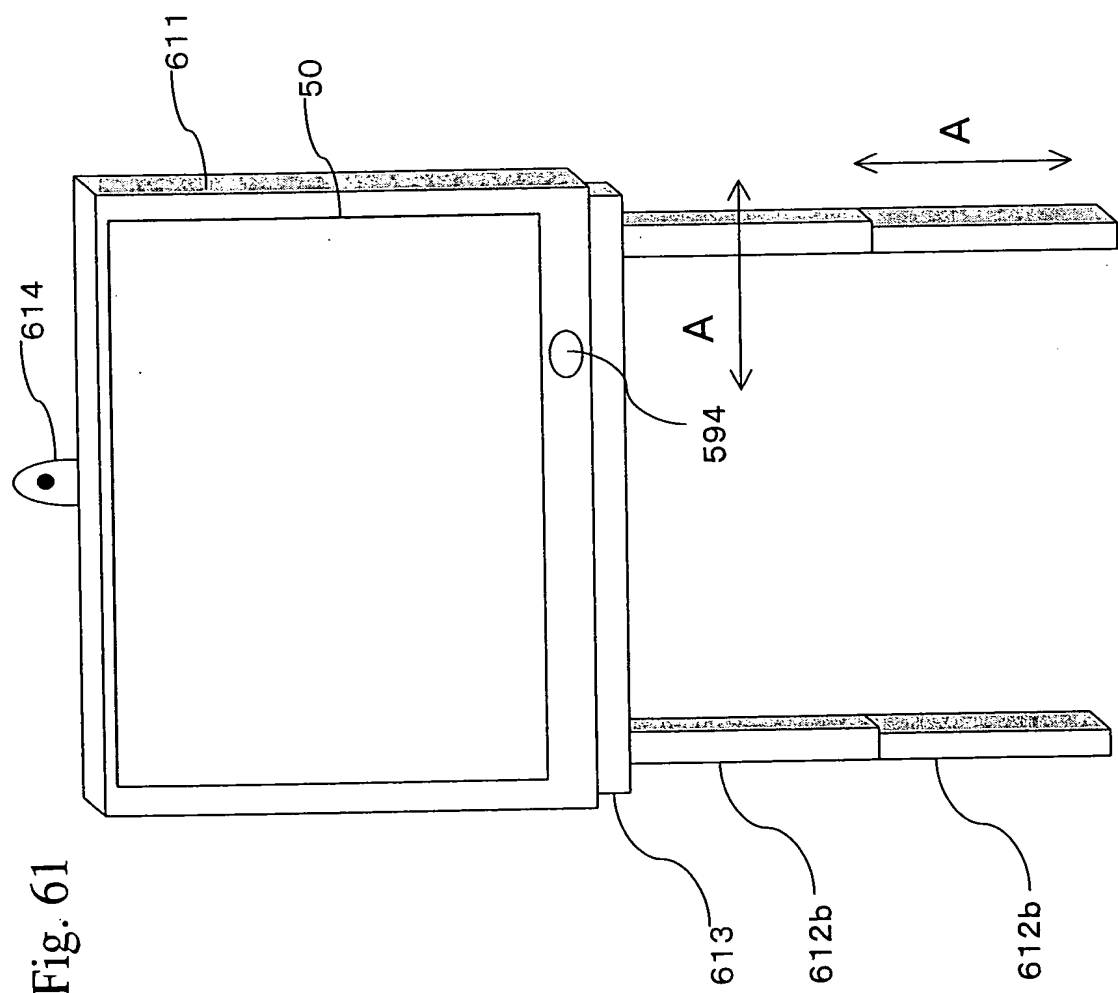


Fig. 61

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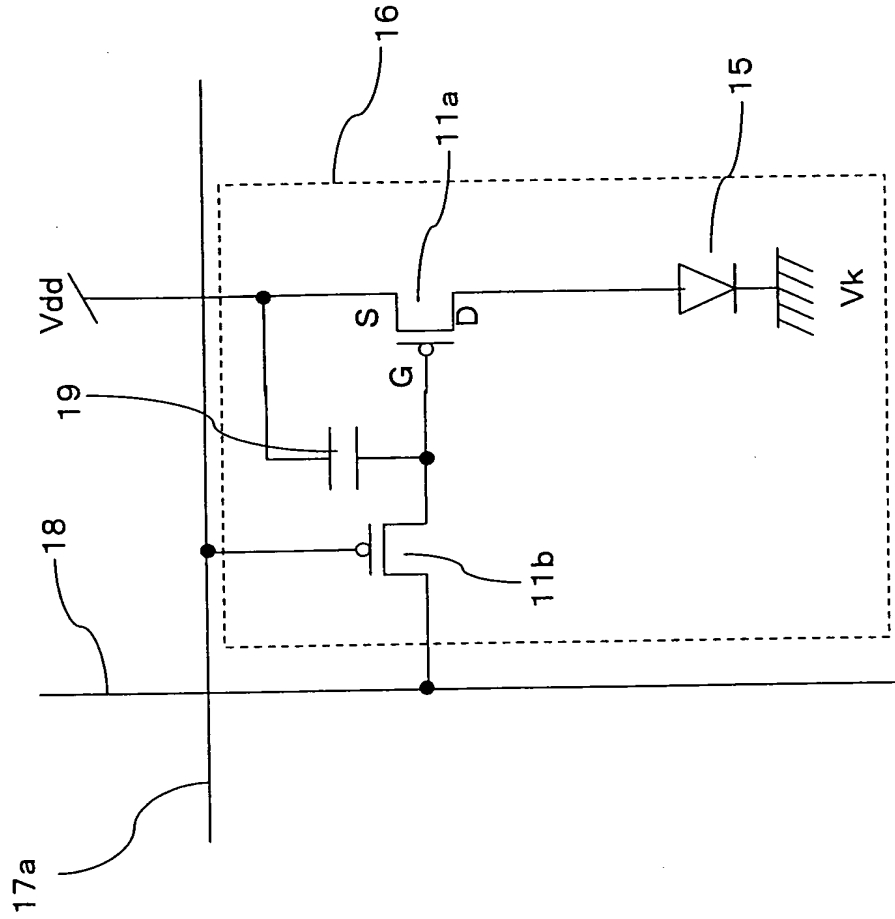


Fig. 62

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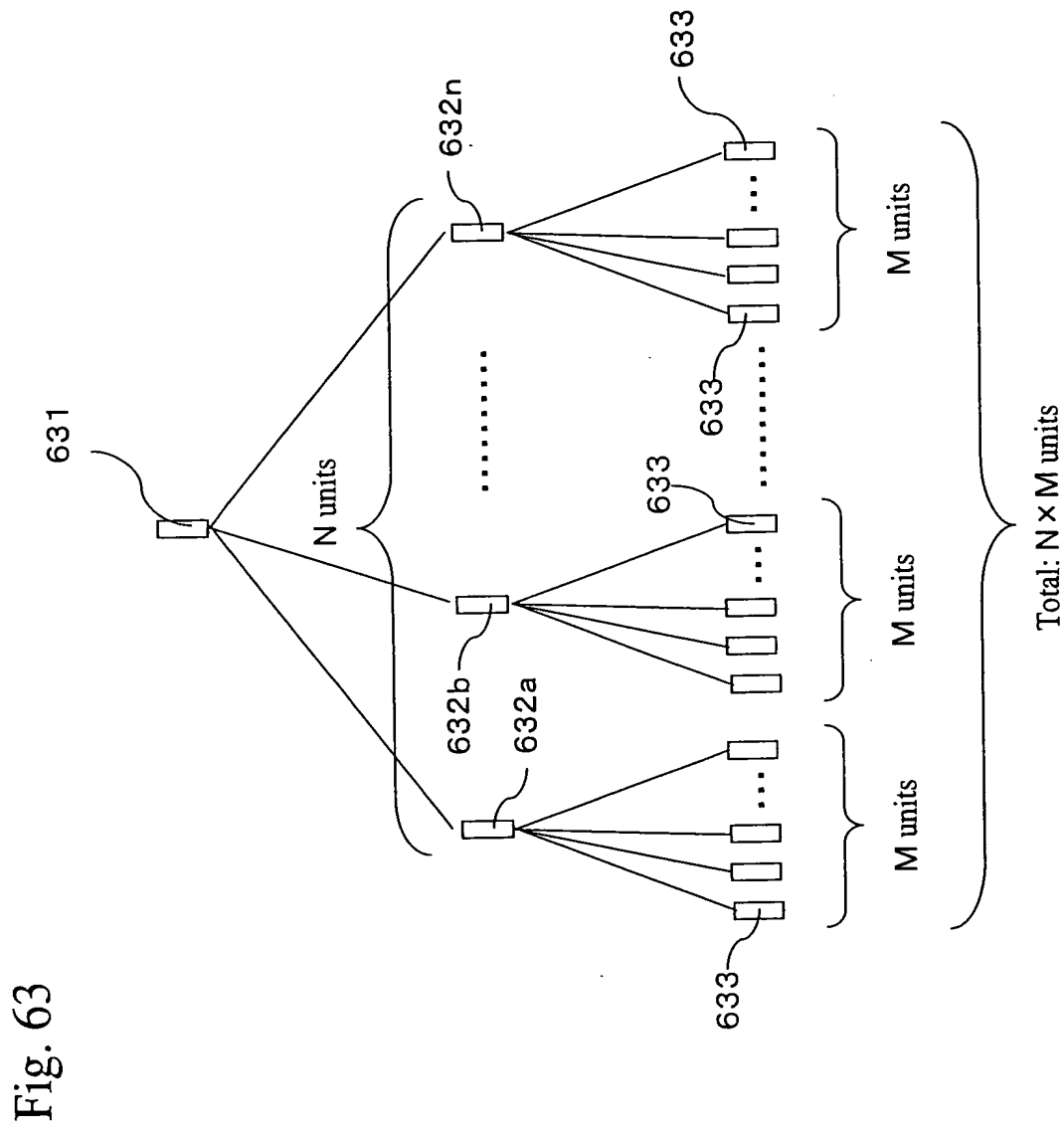


Fig. 63

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Fig. 64

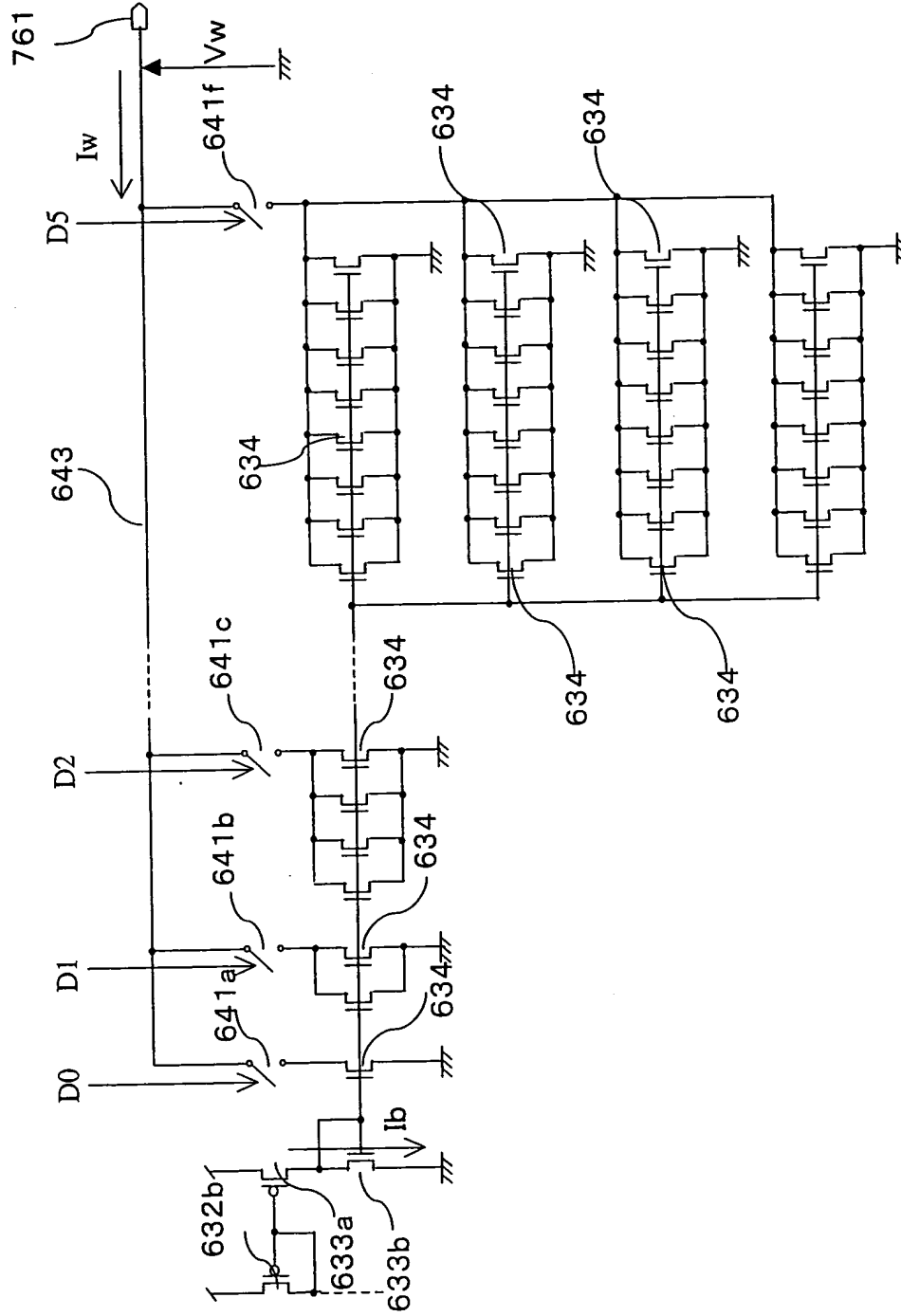


Fig. 65

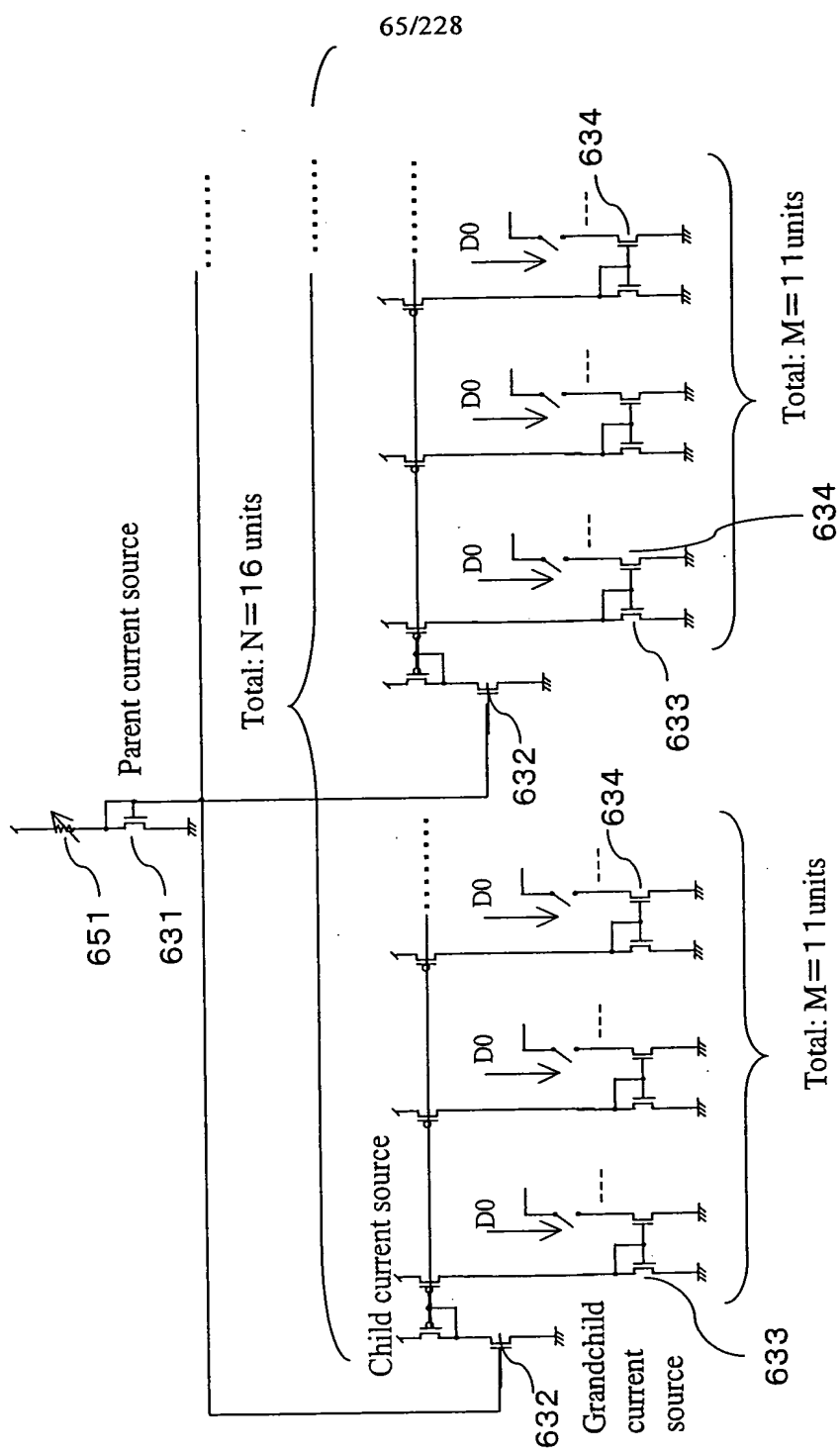
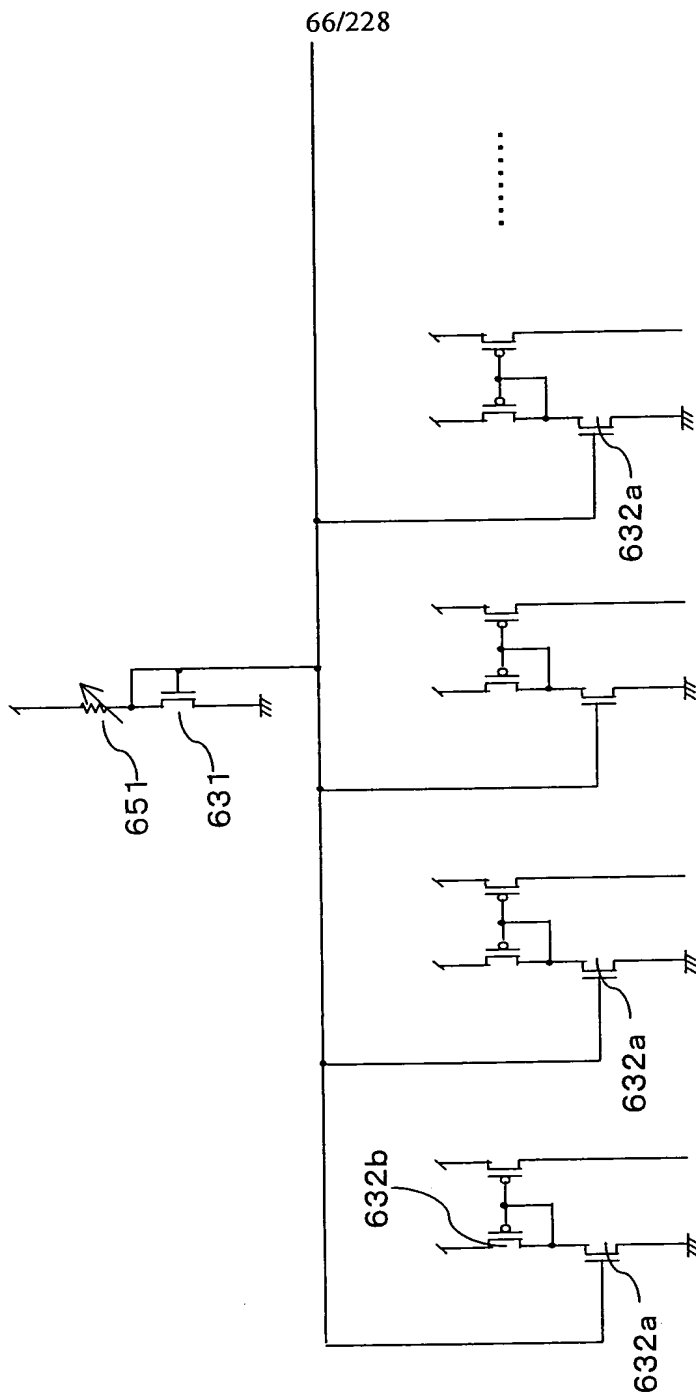
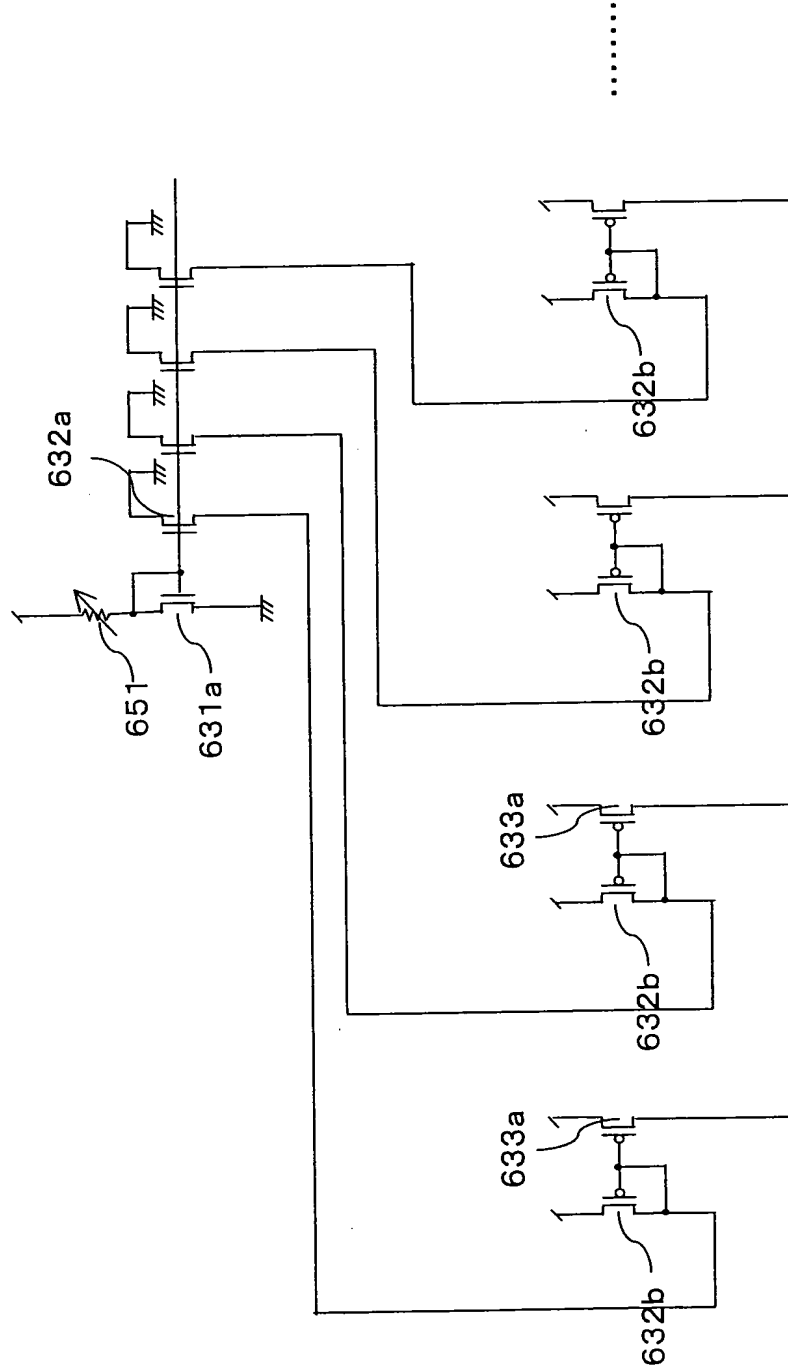


Fig. 66



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Fig. 67



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Fig. 68

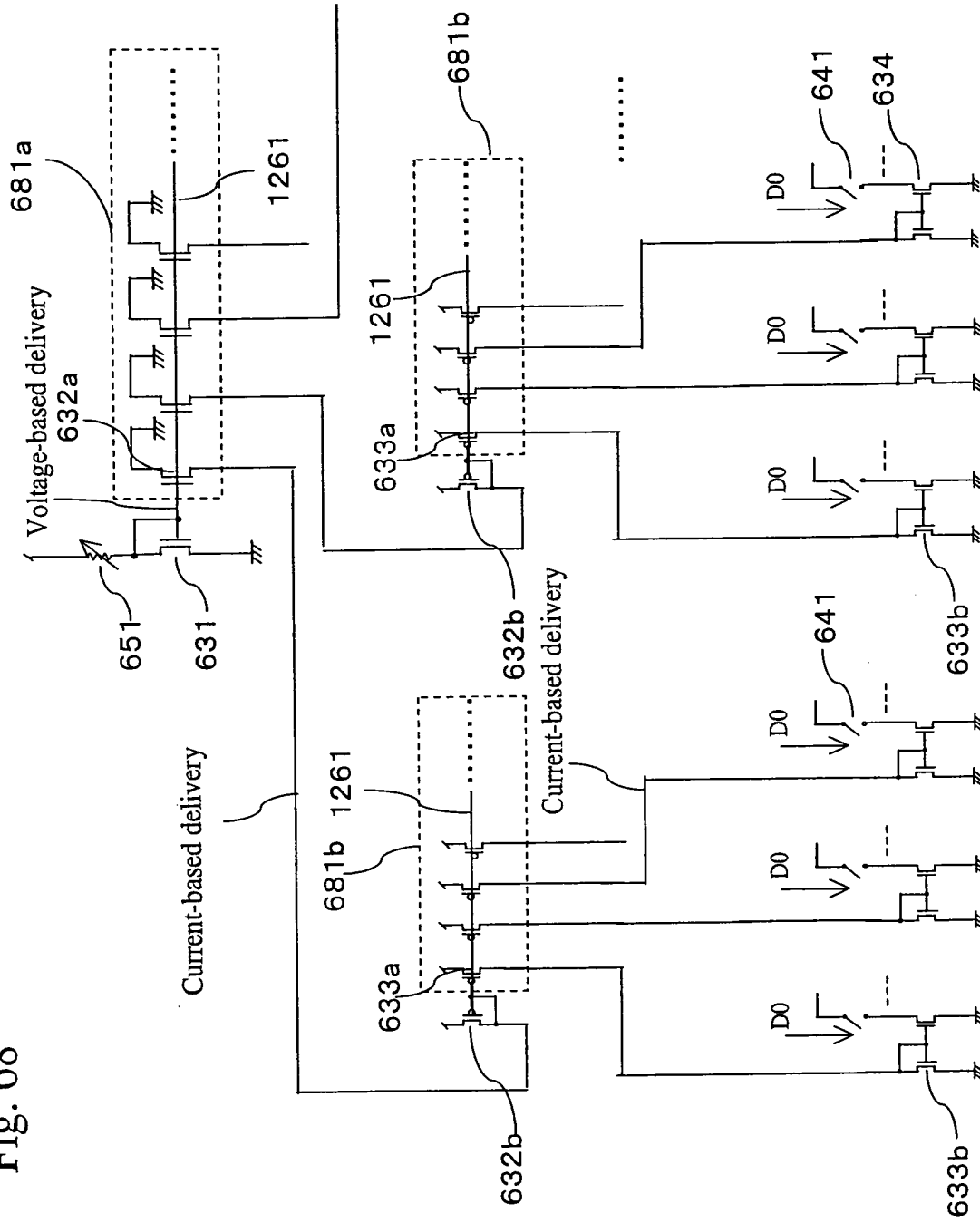
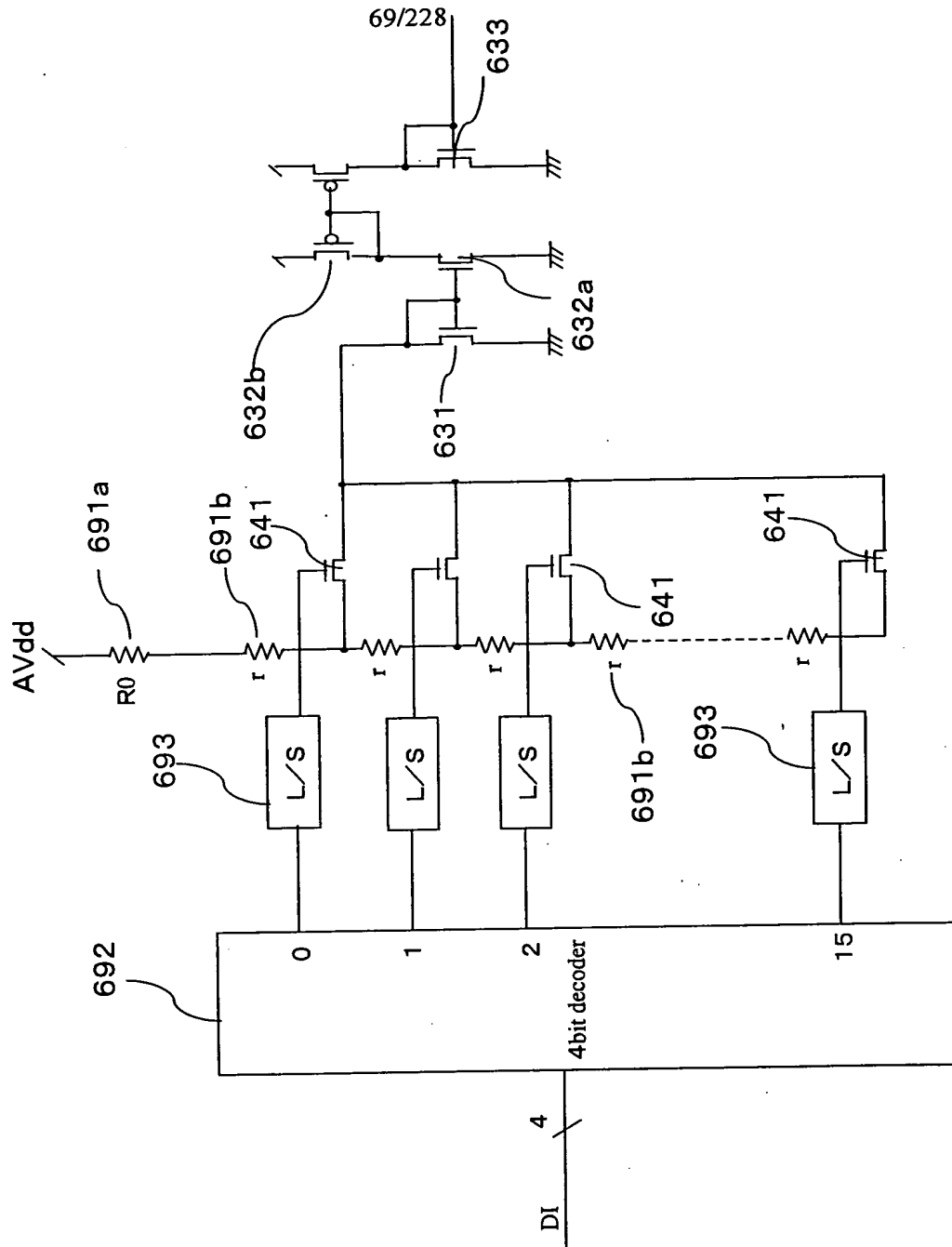


Fig. 69



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Fig. 70

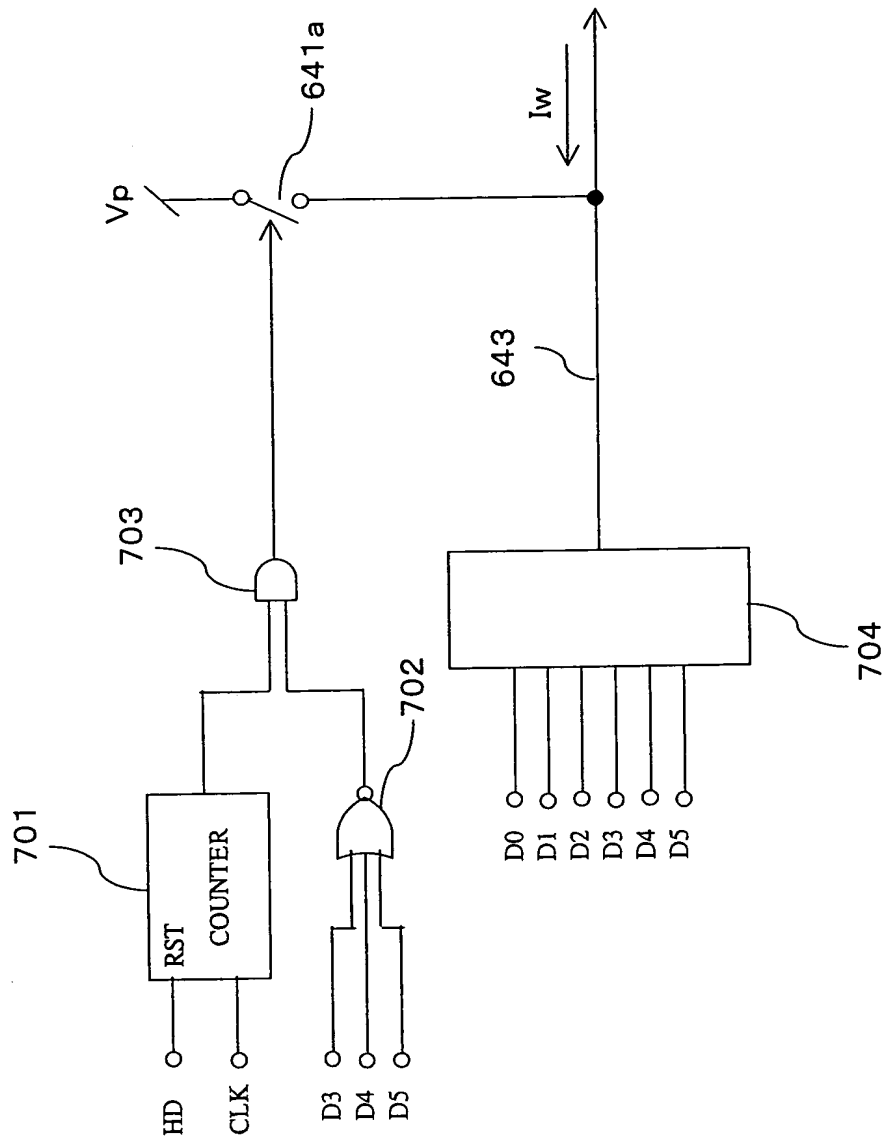
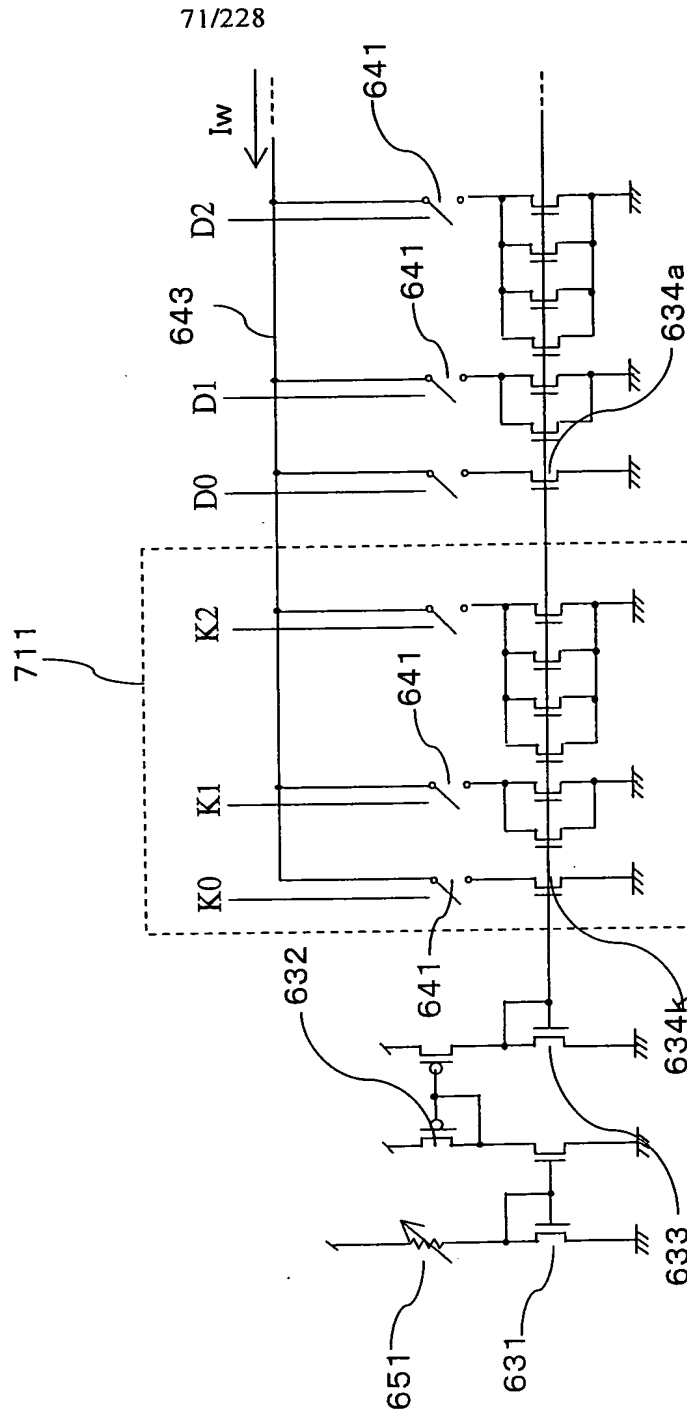
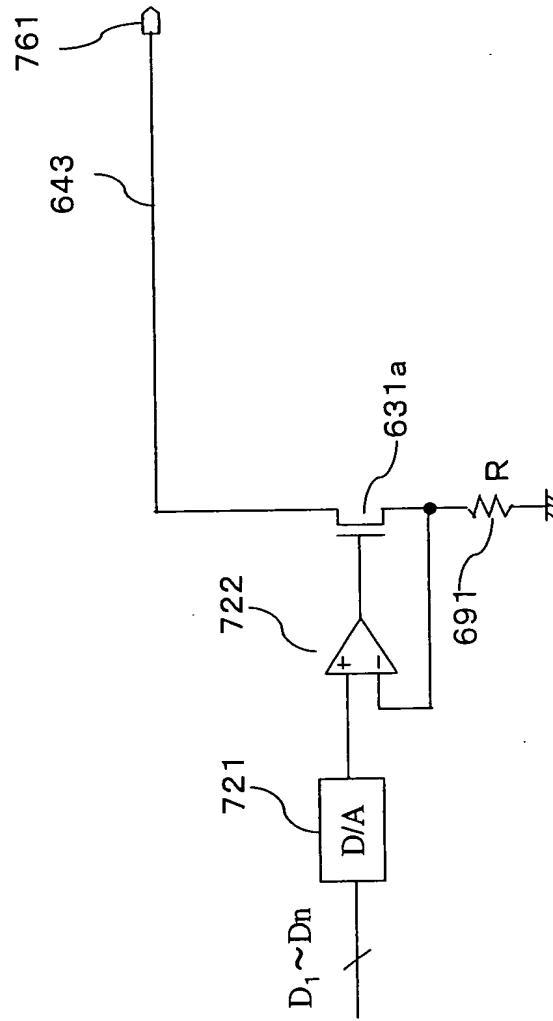


Fig. 71



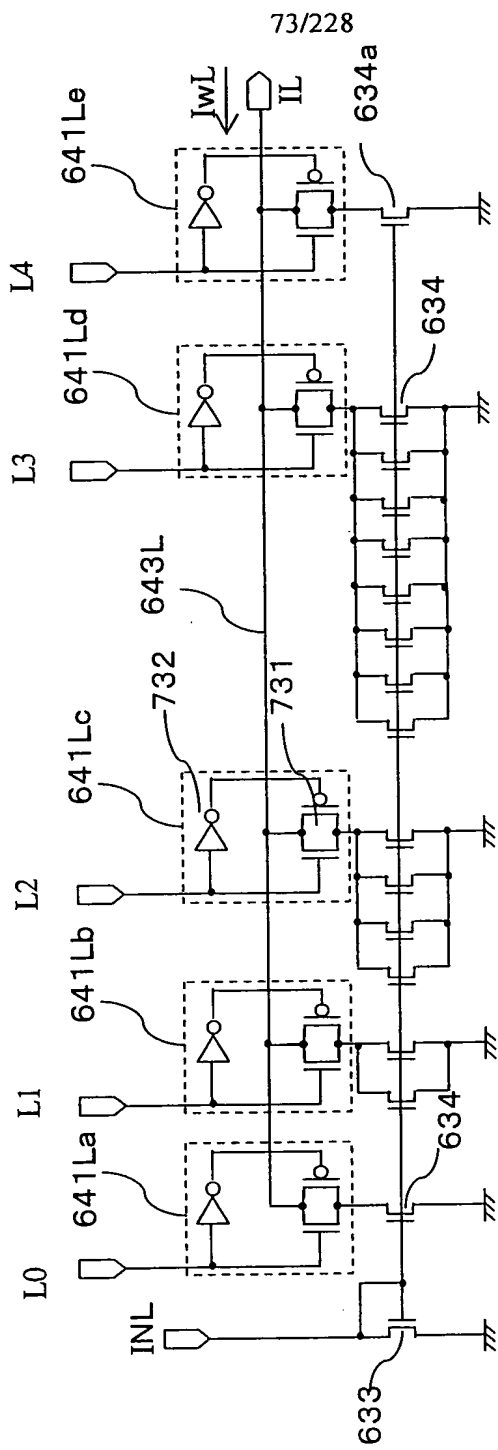
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Fig. 72



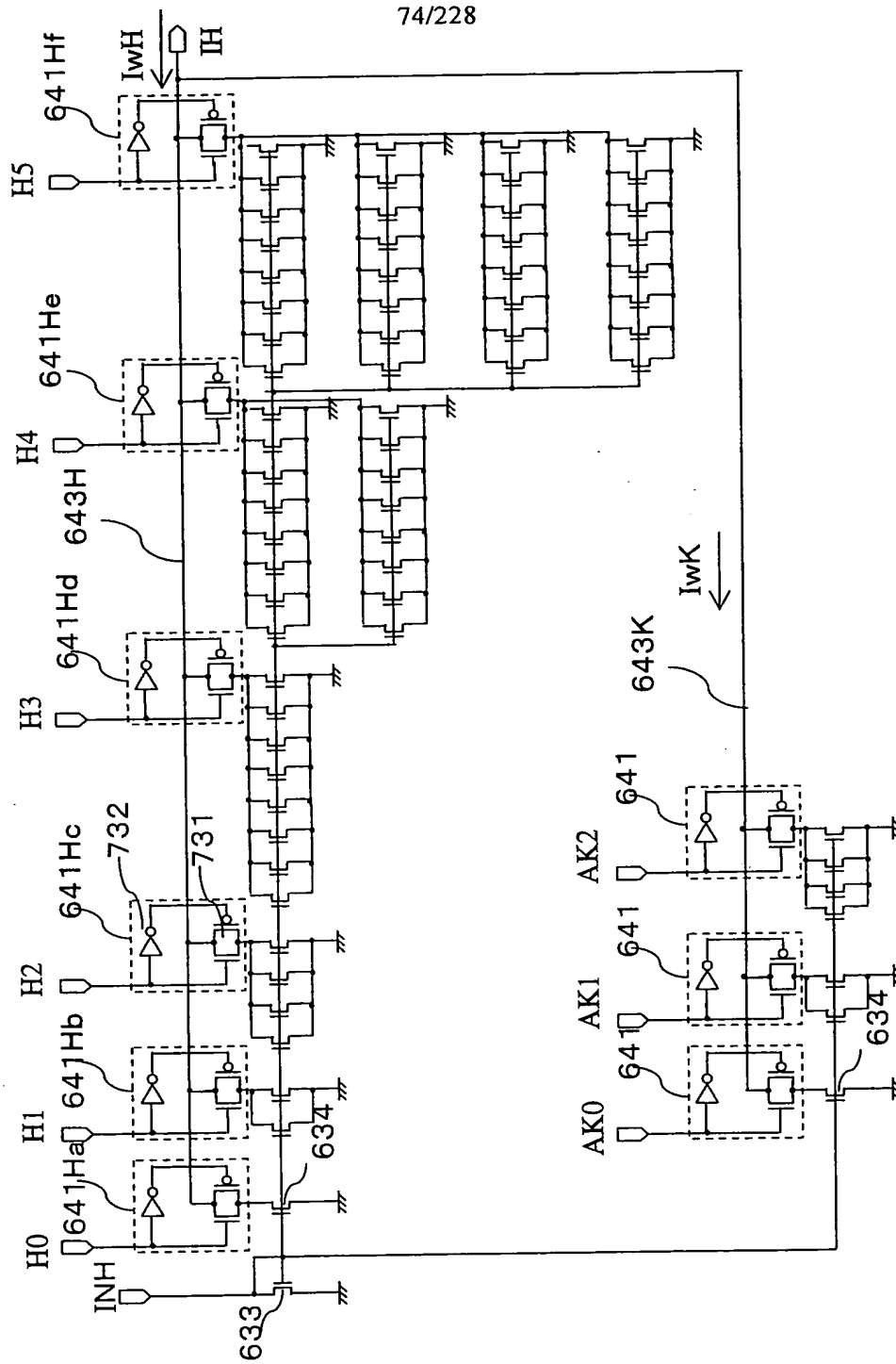
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Fig. 73



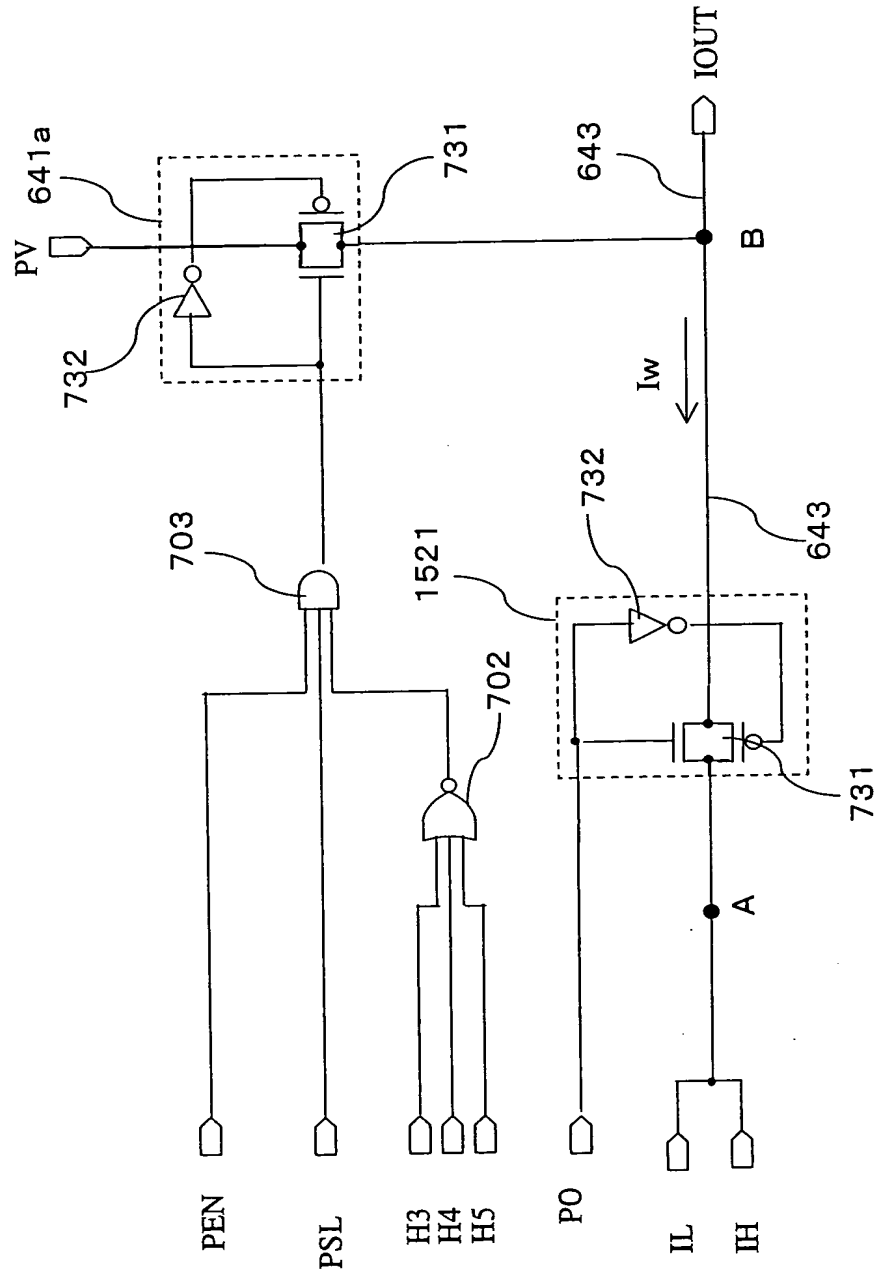
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Fig. 74



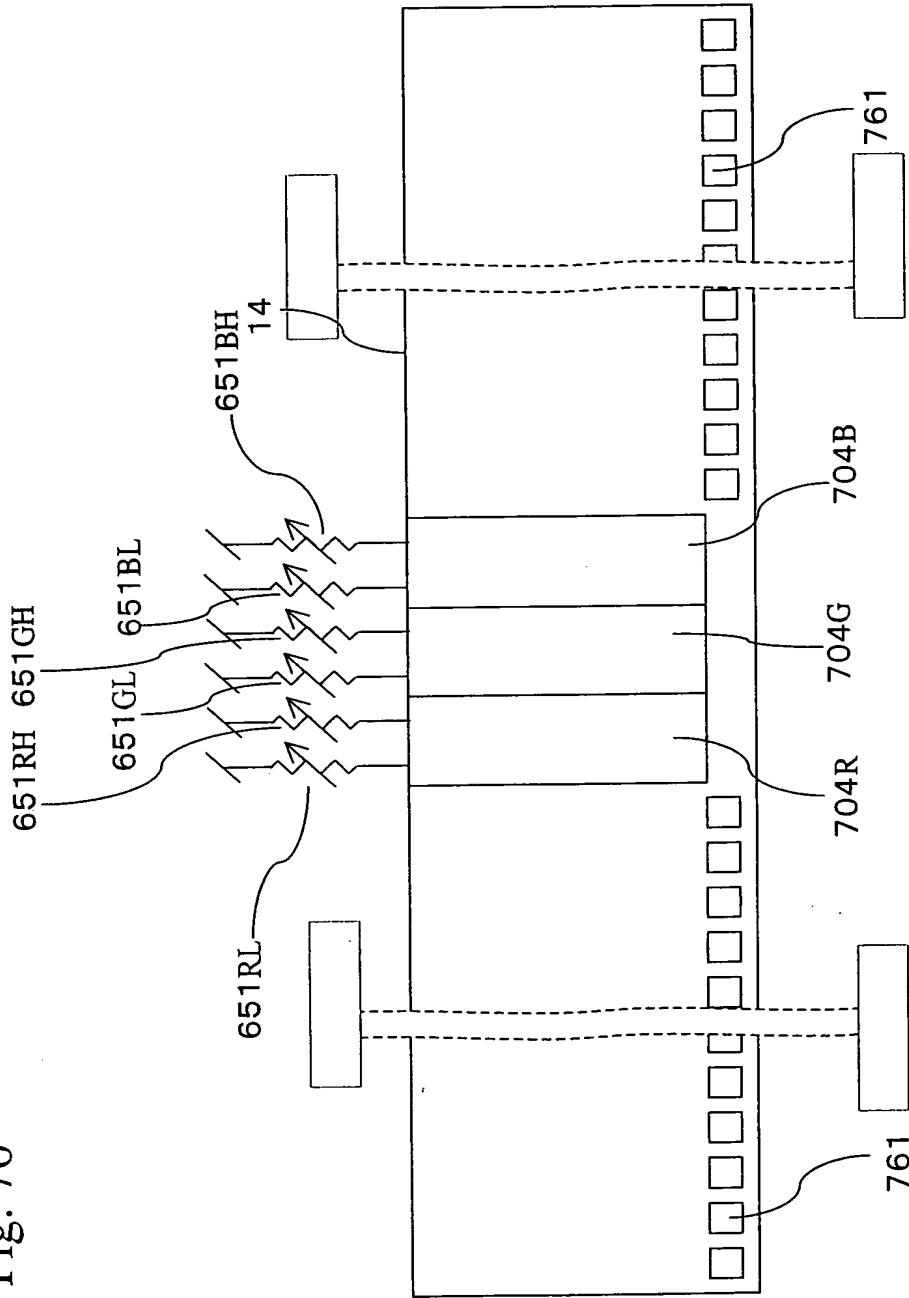
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Fig. 75



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Fig. 76



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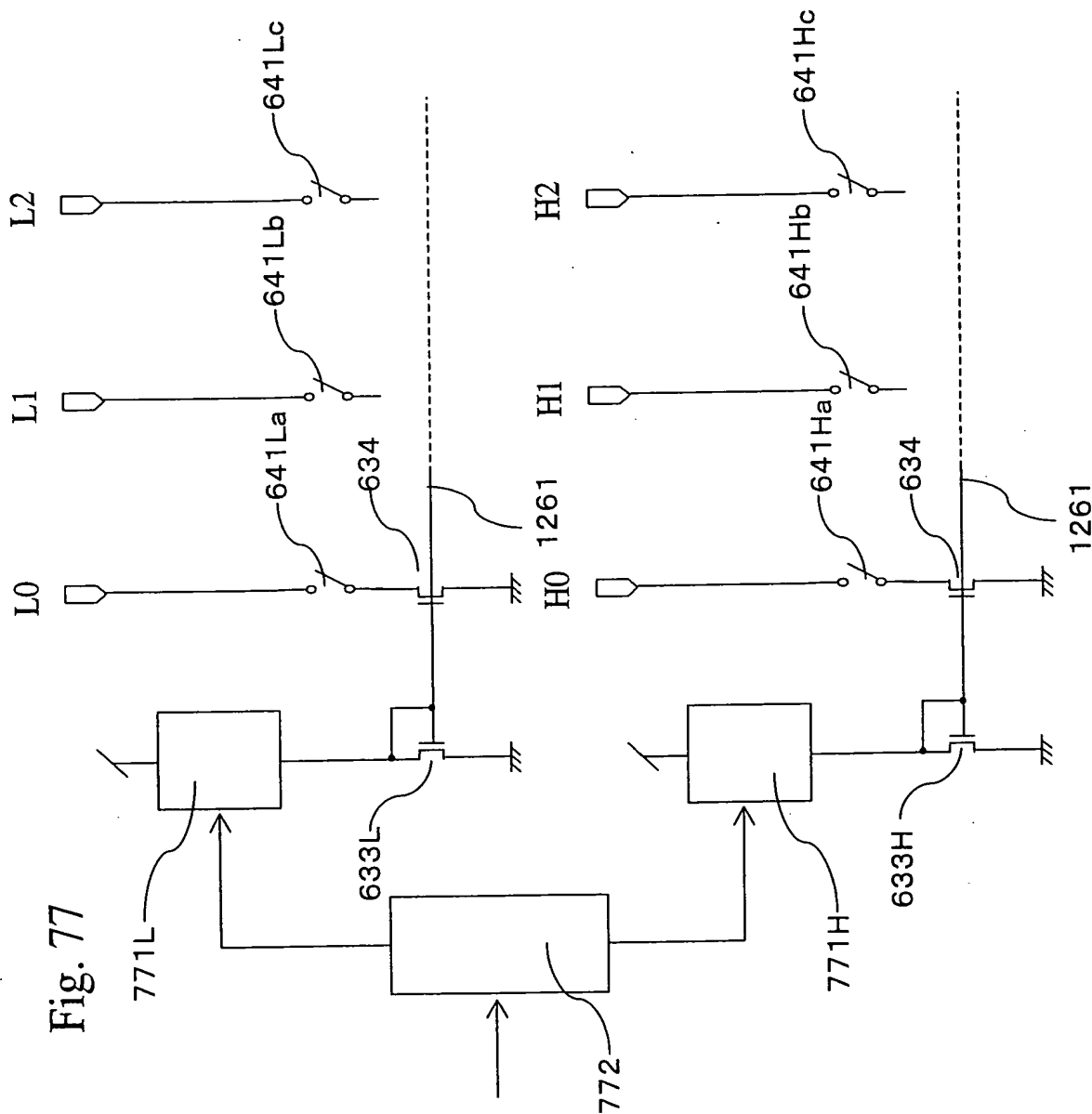
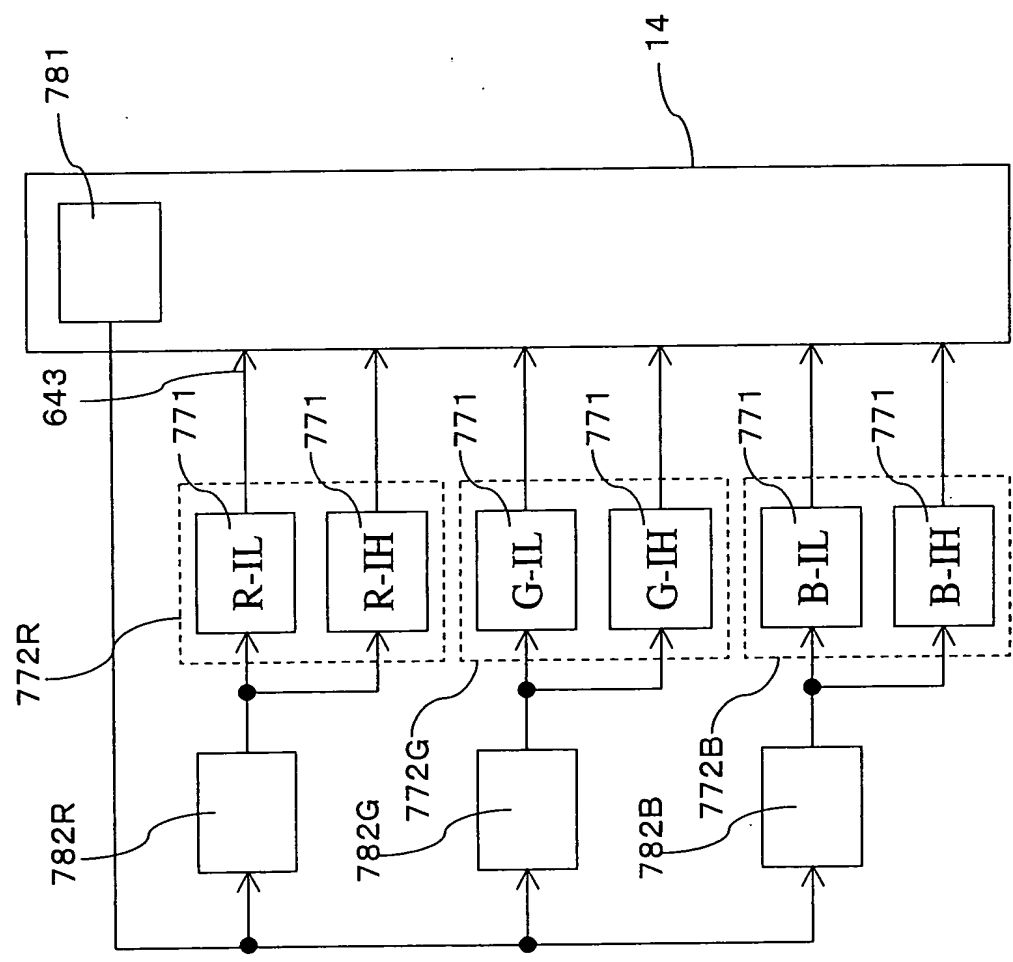


Fig. 77

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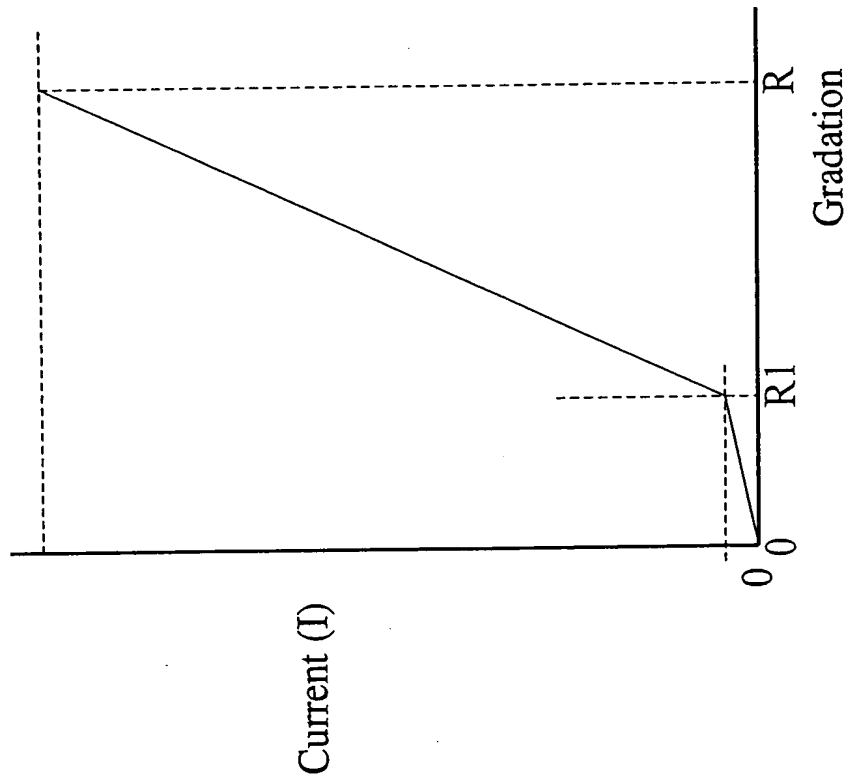
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Fig. 78



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Fig. 79



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Fig. 80 (b)

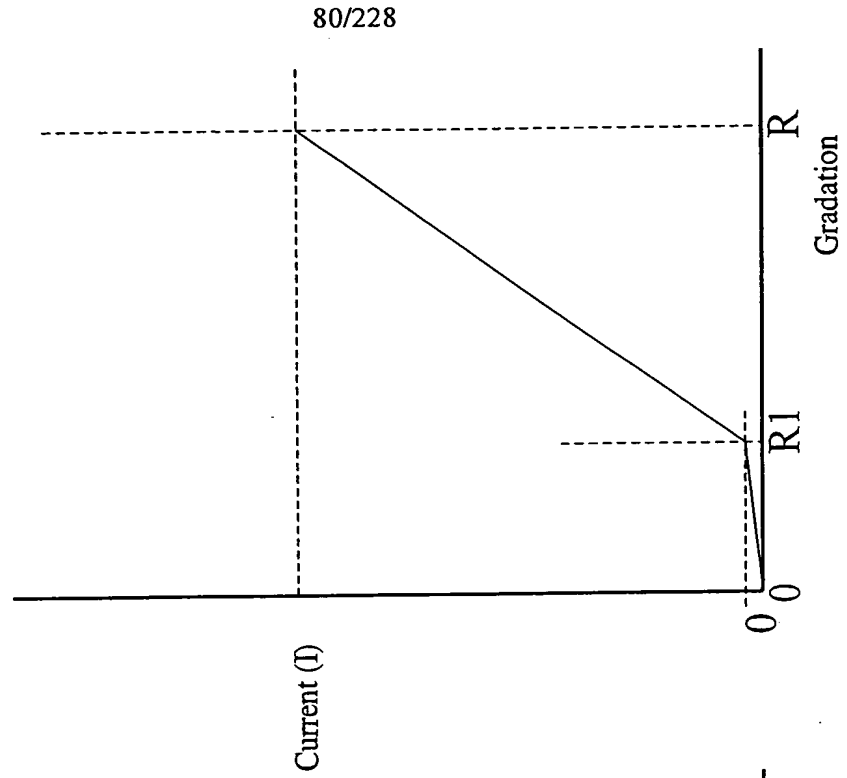
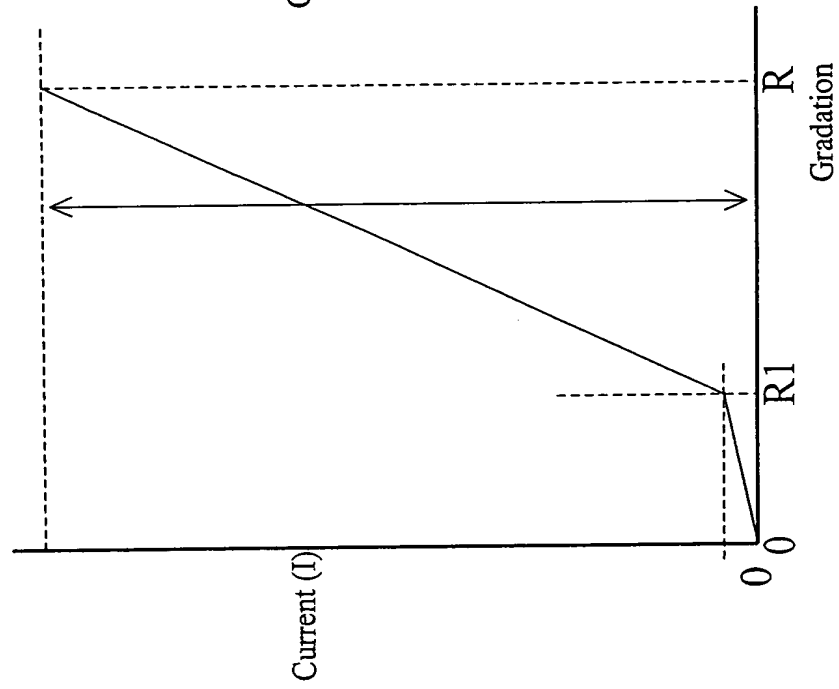


Fig. 80 (a)



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Fig. 81 (b)

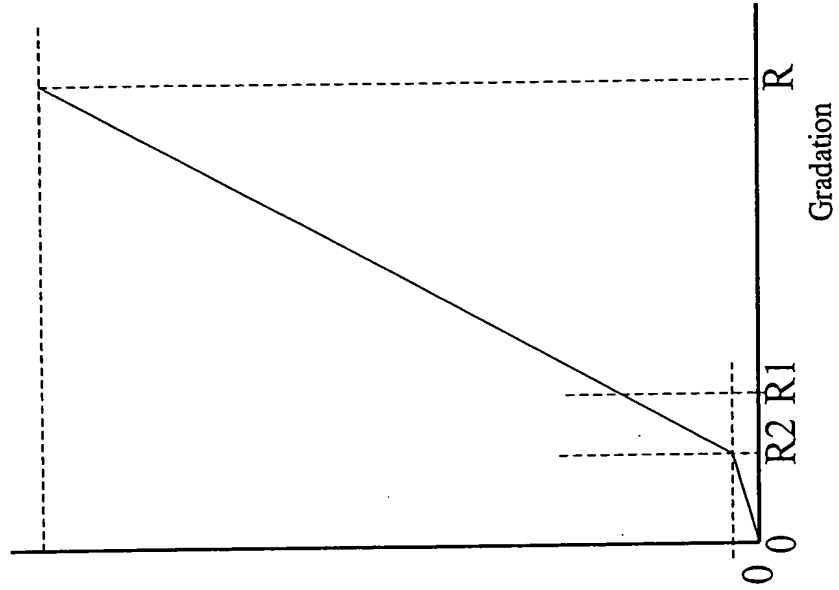
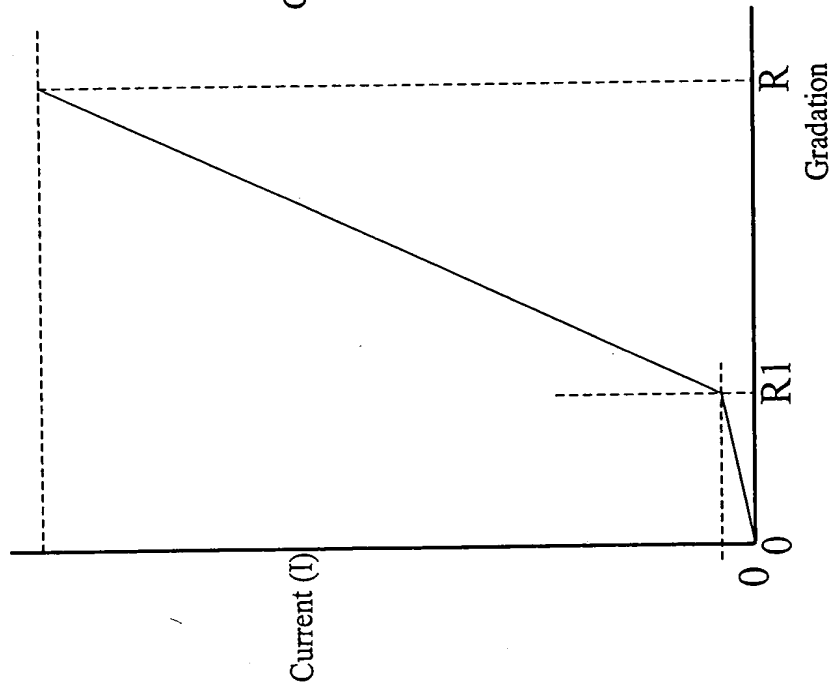


Fig. 81 (a)



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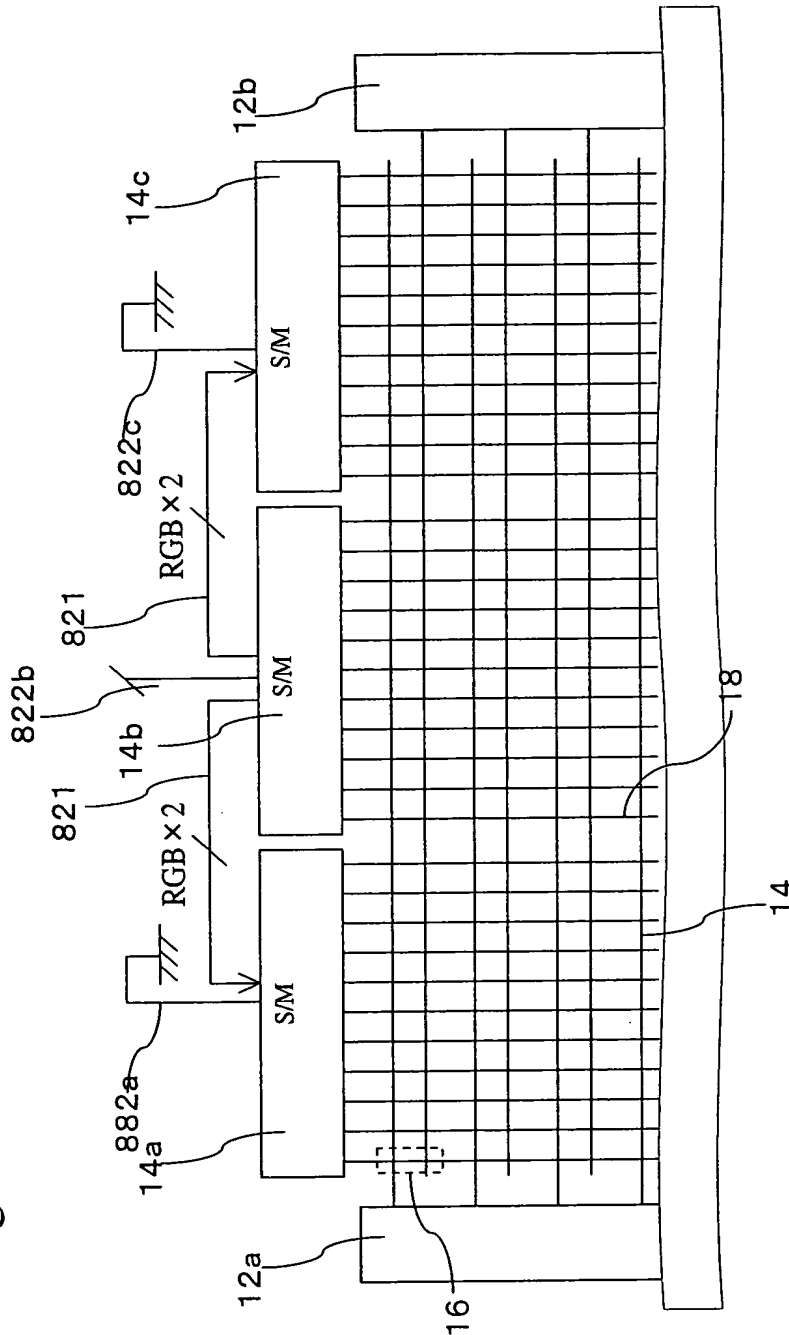


Fig. 82

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Fig. 83

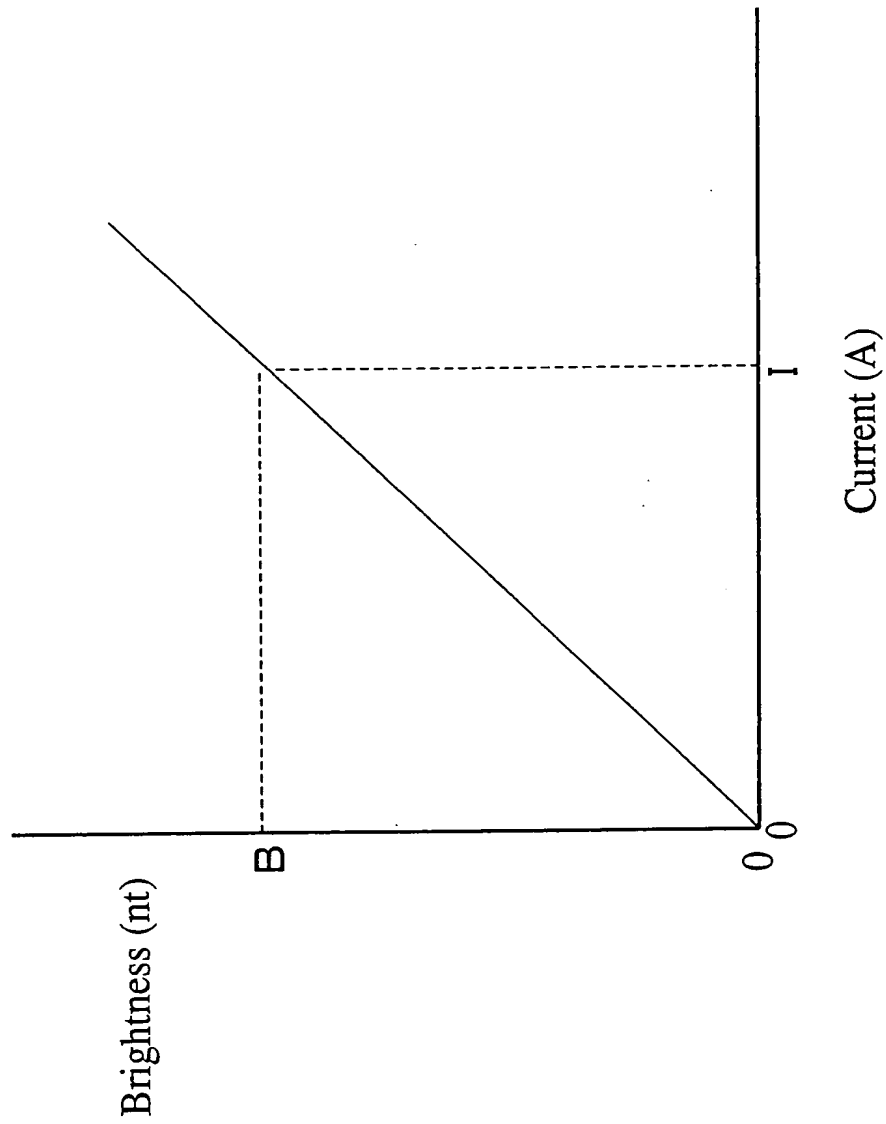


Fig. 84

[illegible]

Fig. 85

[illegible]

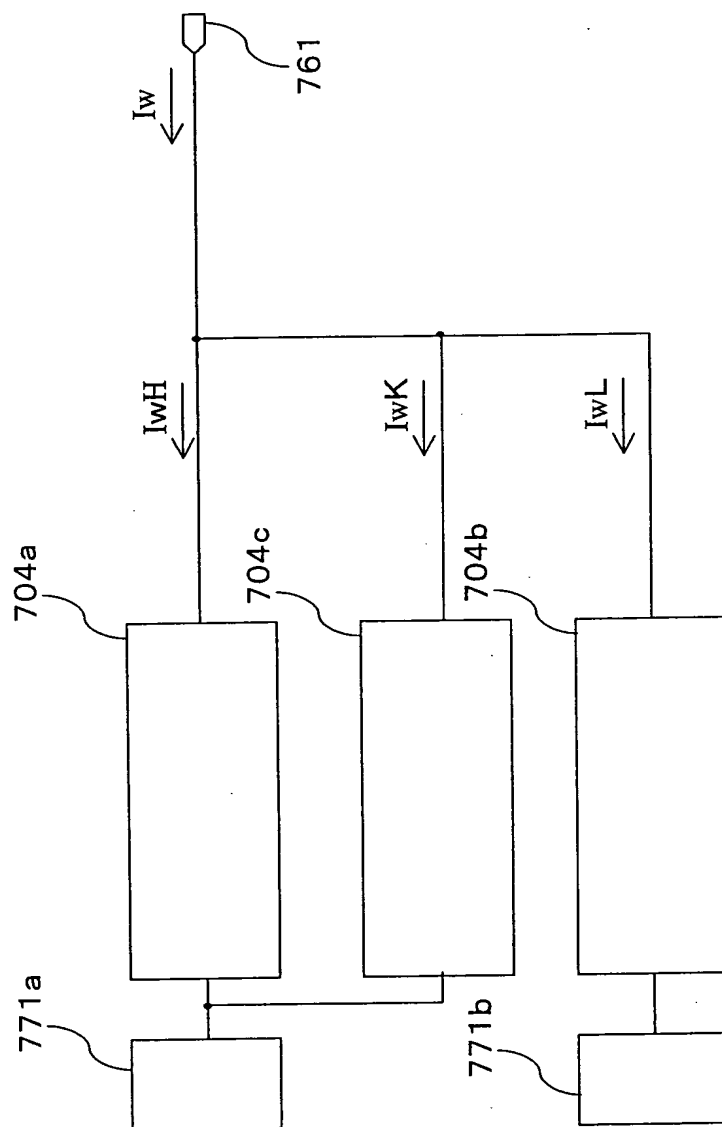
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Gradation	L0	L1	L2	L3	L4	H0	H1	H2	H3	H4	H5
0	0	0	0	0	0	0	0	0	0	0	0
1	1	0	0	0	0	0	0	0	0	0	0
2	0	1	0	0	0	0	0	0	0	0	0
3	1	1	0	0	0	0	0	0	0	0	0
4	0	0	1	0	0	0	0	0	0	0	0
5	1	0	1	0	0	0	0	0	0	0	0
6	0	1	1	0	0	0	0	0	0	0	0
7	1	1	1	0	0	0	0	0	0	0	0
8	0	0	0	1	0	0	0	0	0	0	0
9	1	0	0	1	0	0	0	0	0	0	0
10	0	1	0	1	0	0	0	0	0	0	0
11	1	1	0	1	0	0	0	0	0	0	0
12	0	0	1	1	0	0	0	0	0	0	0
13	1	0	1	1	0	0	0	0	0	0	0
14	0	1	1	1	0	0	0	0	0	0	0
15	1	1	1	1	0	0	0	0	0	0	0
16	1	1	1	1	1	0	0	0	0	0	0
17	1	1	0	0	1	1	0	0	0	0	0
18	1	1	0	0	1	0	1	0	0	0	0
∴											

Fig. 86

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Fig. 87



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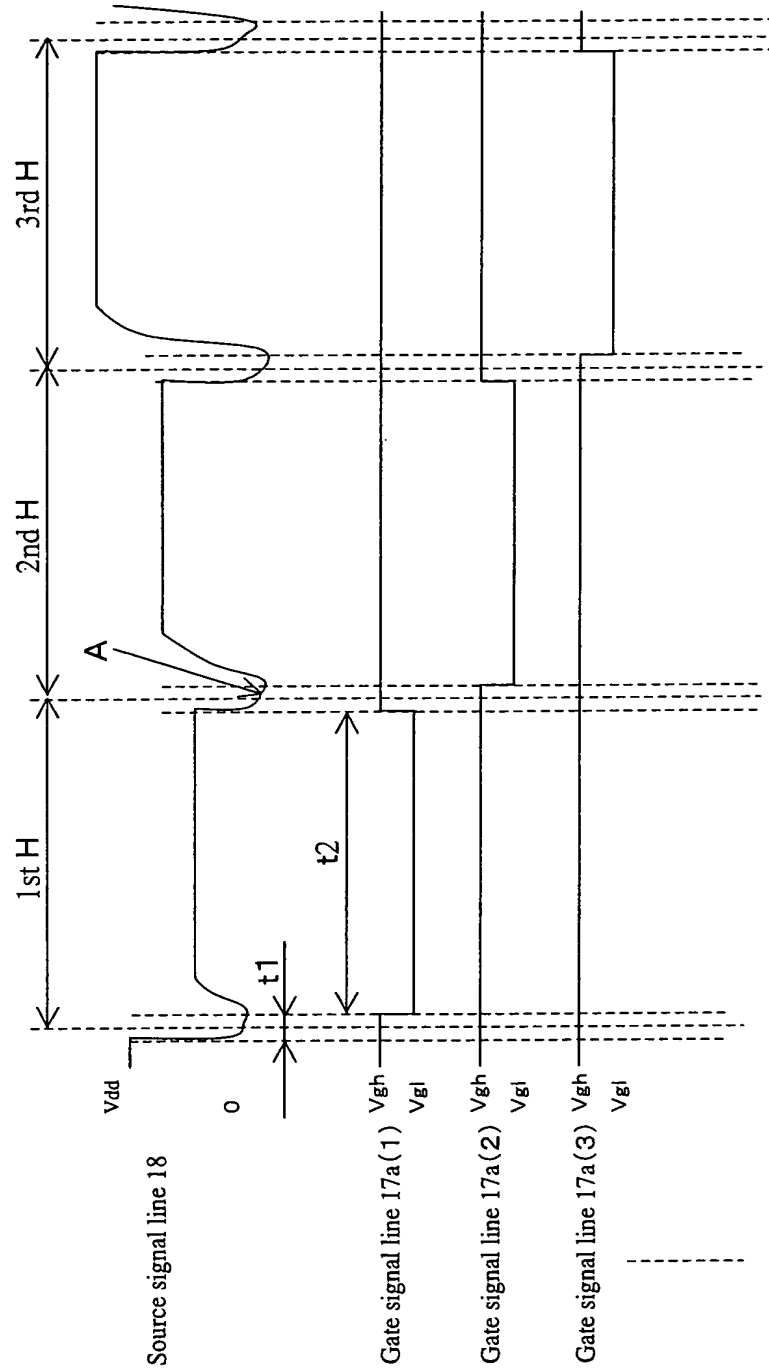


Fig. 88

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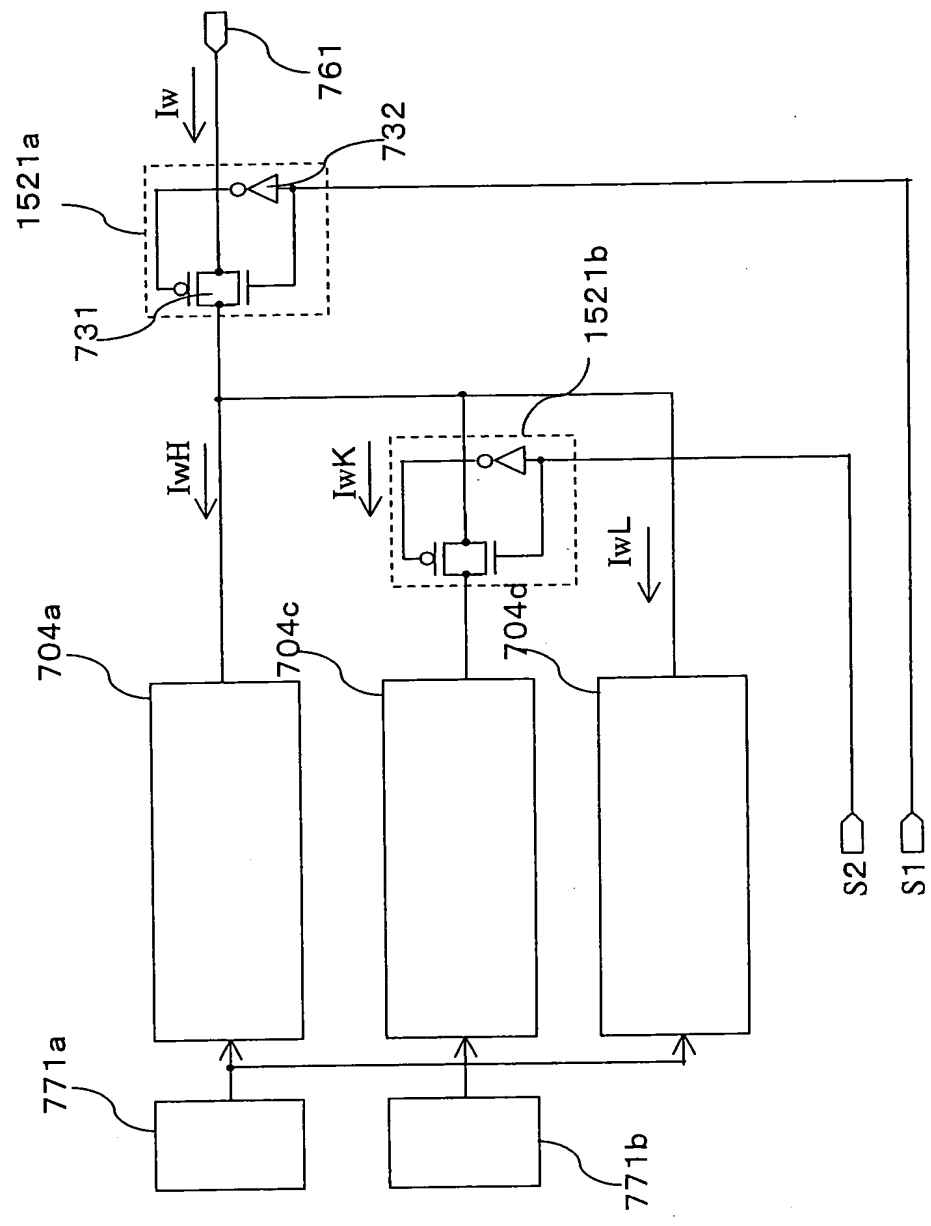
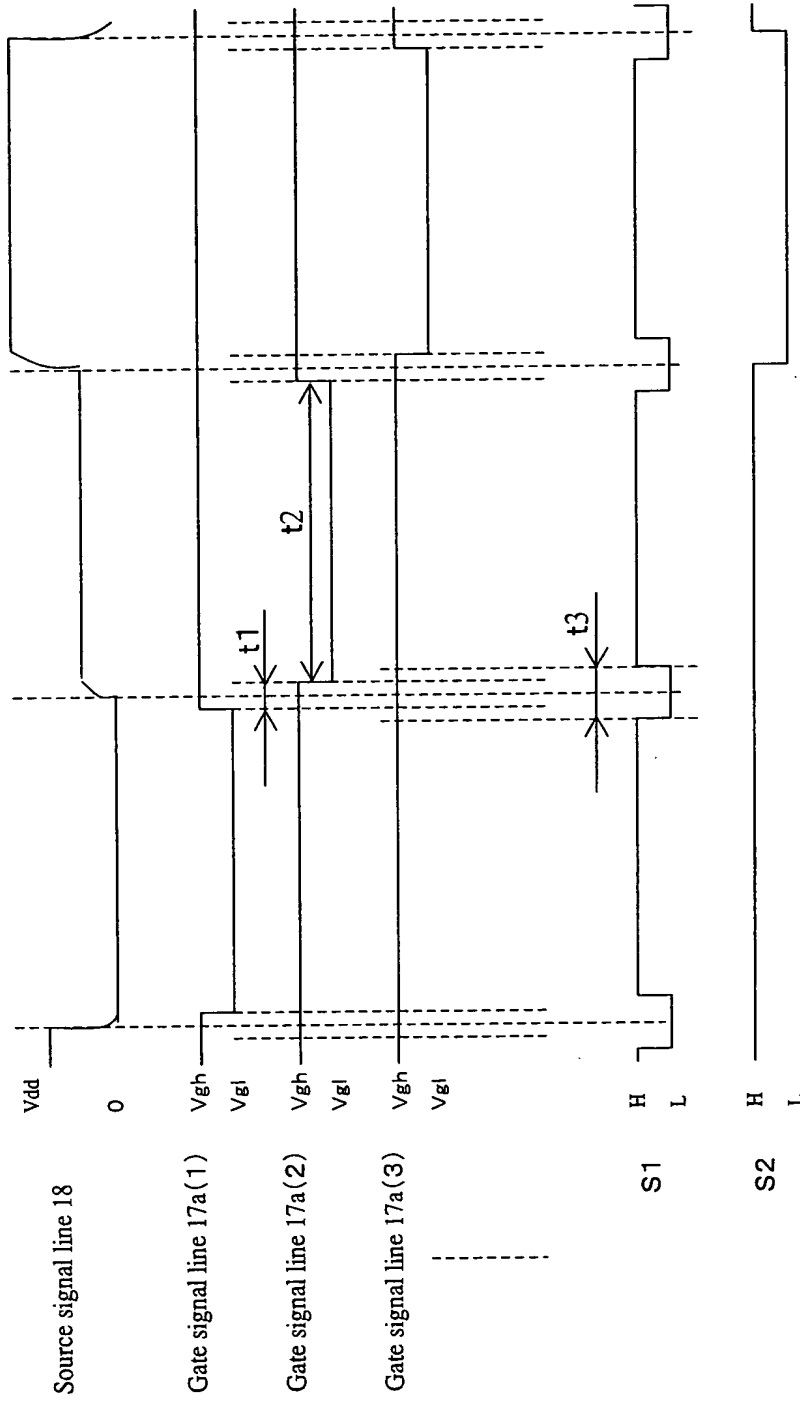


Fig. 89

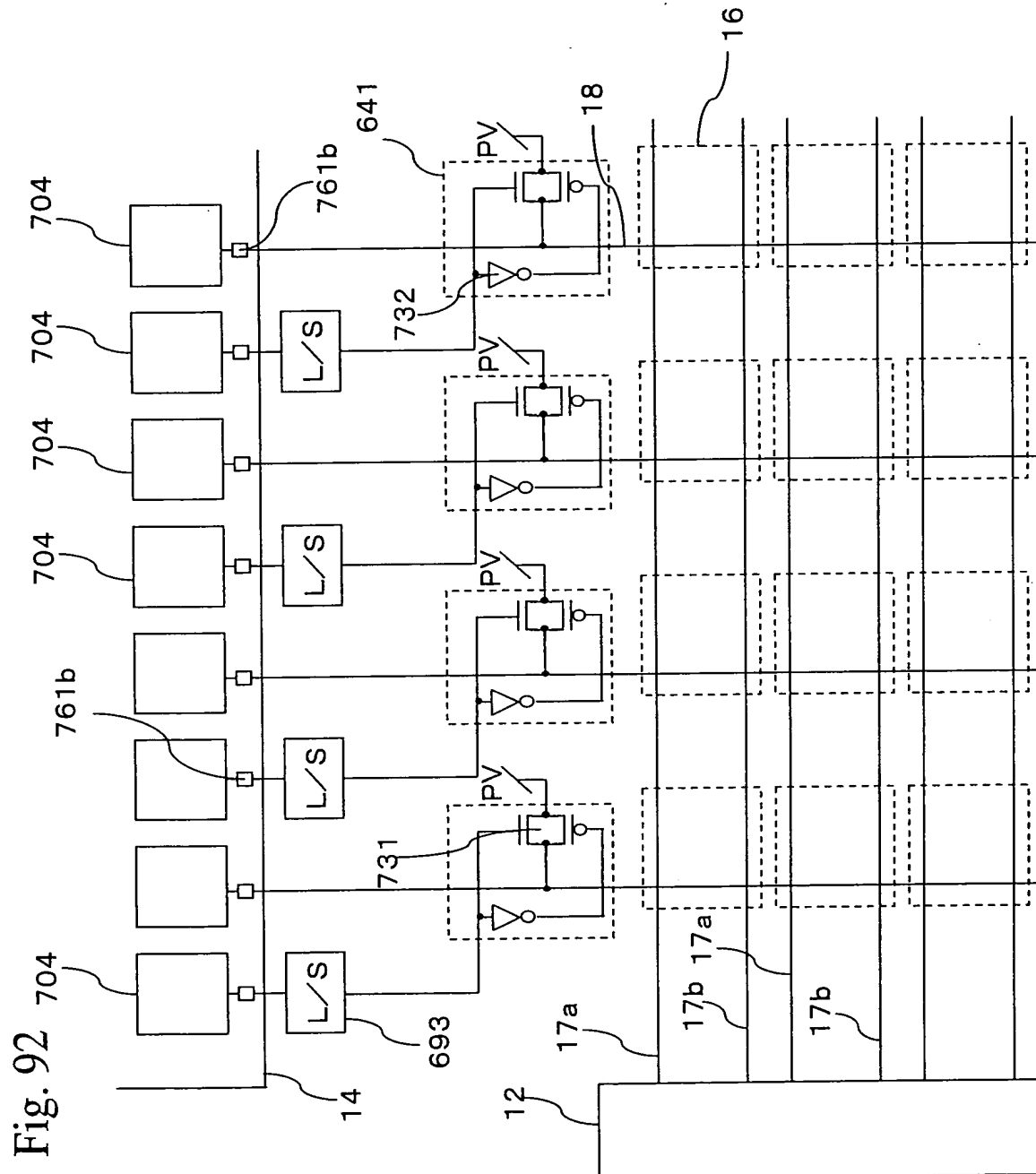
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Fig. 90



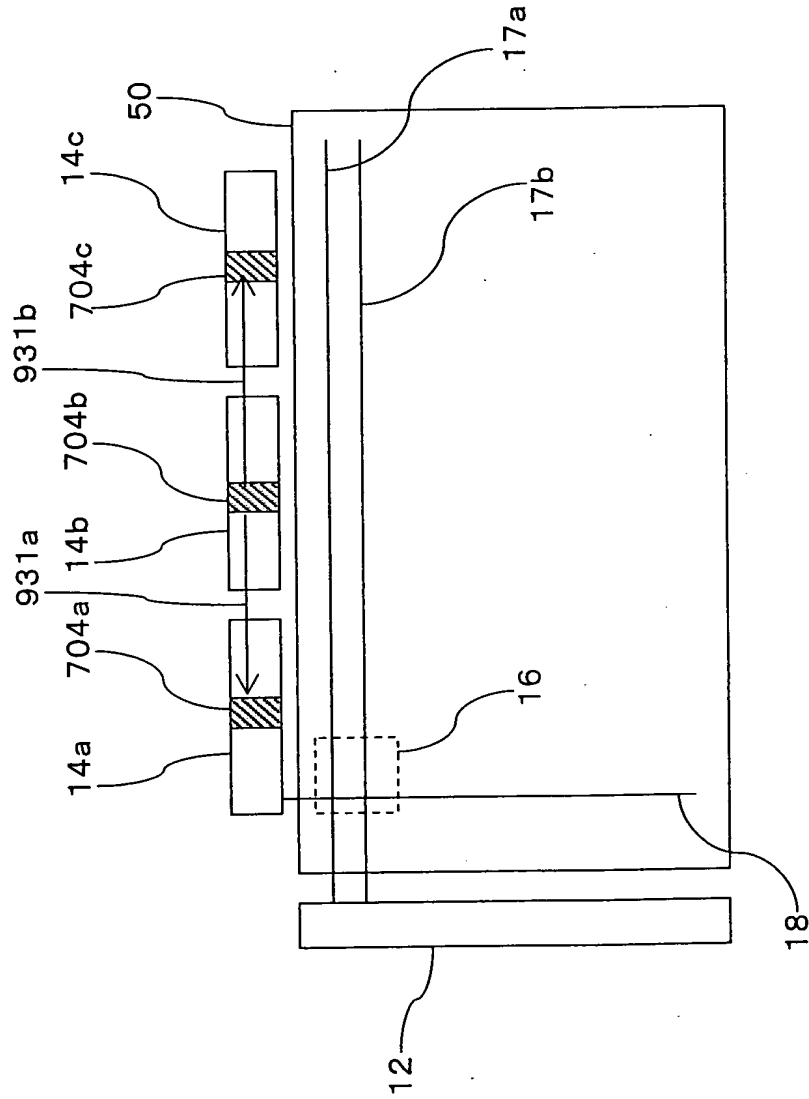
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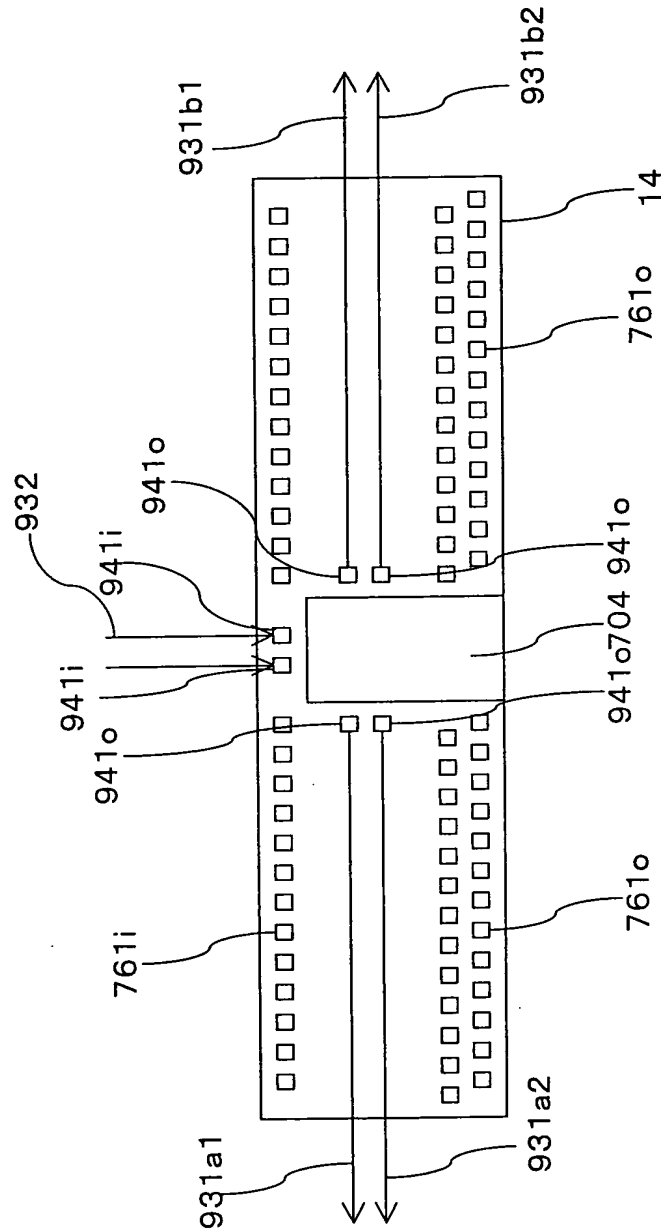
Fig. 93



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Fig. 94



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Fig. 95

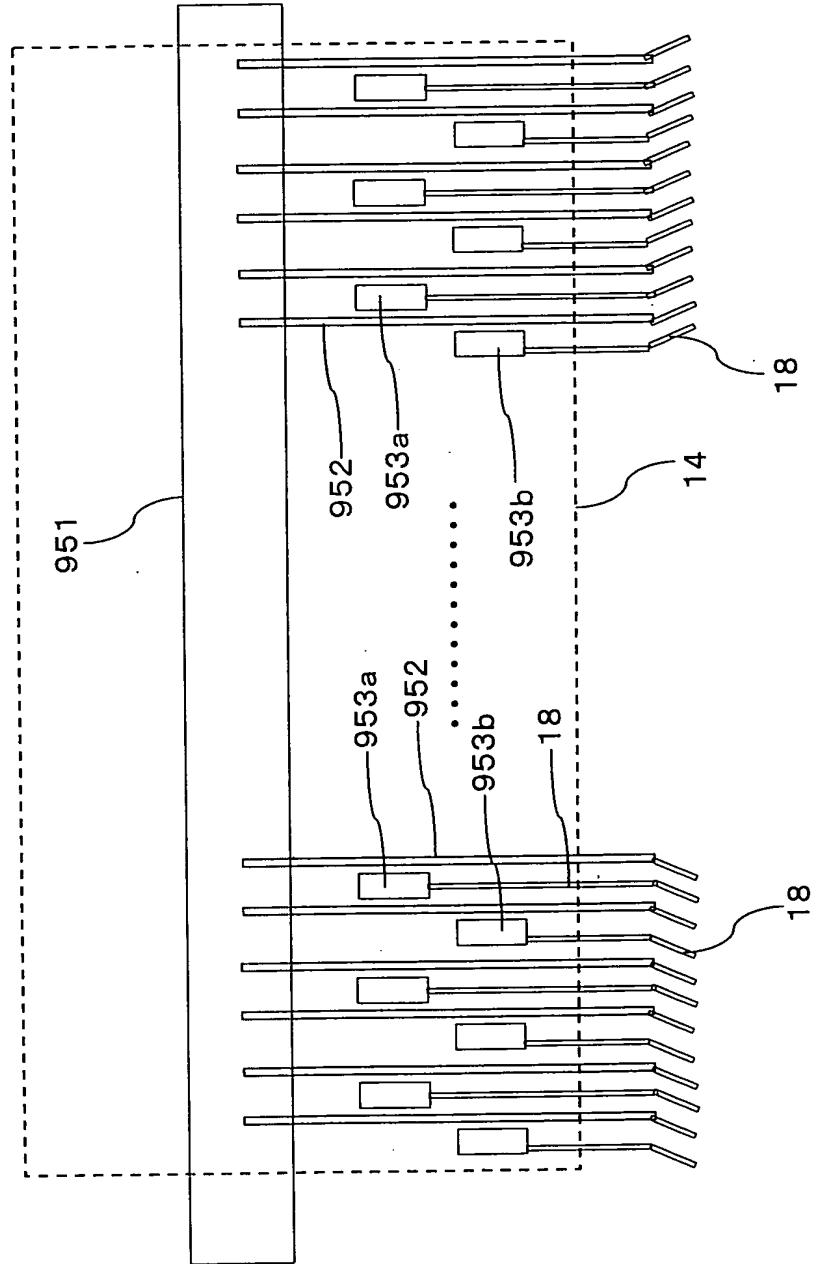
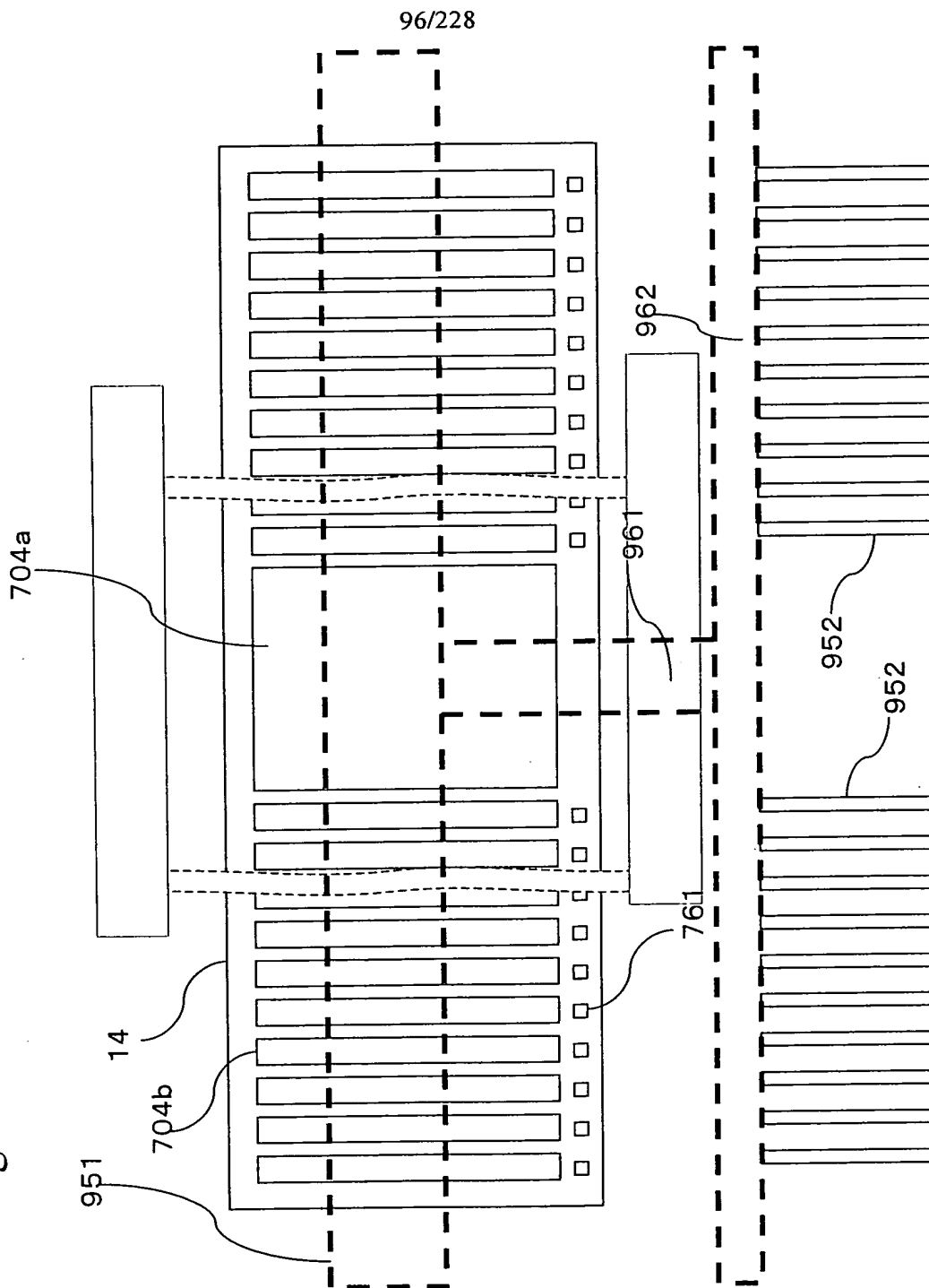
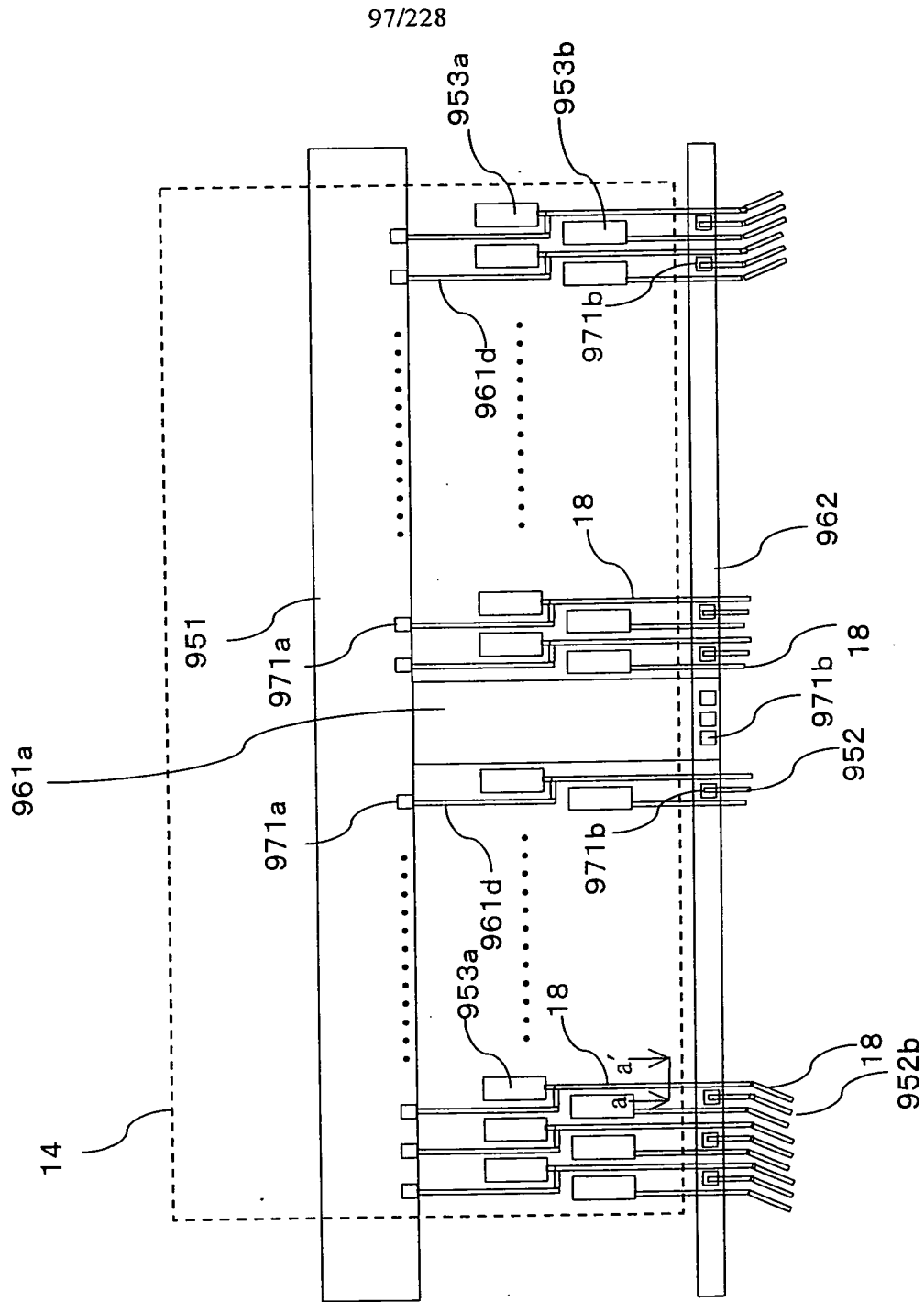


Fig. 96



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Fig. 97



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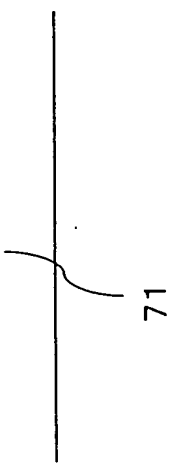
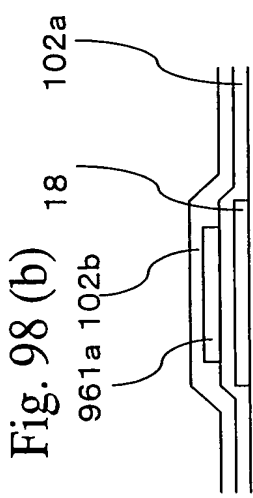
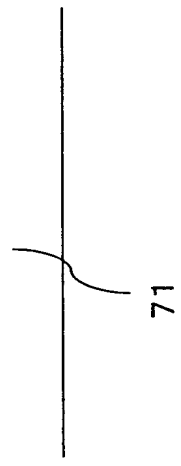
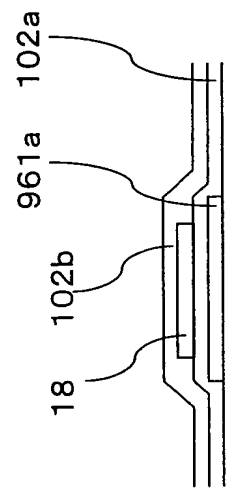
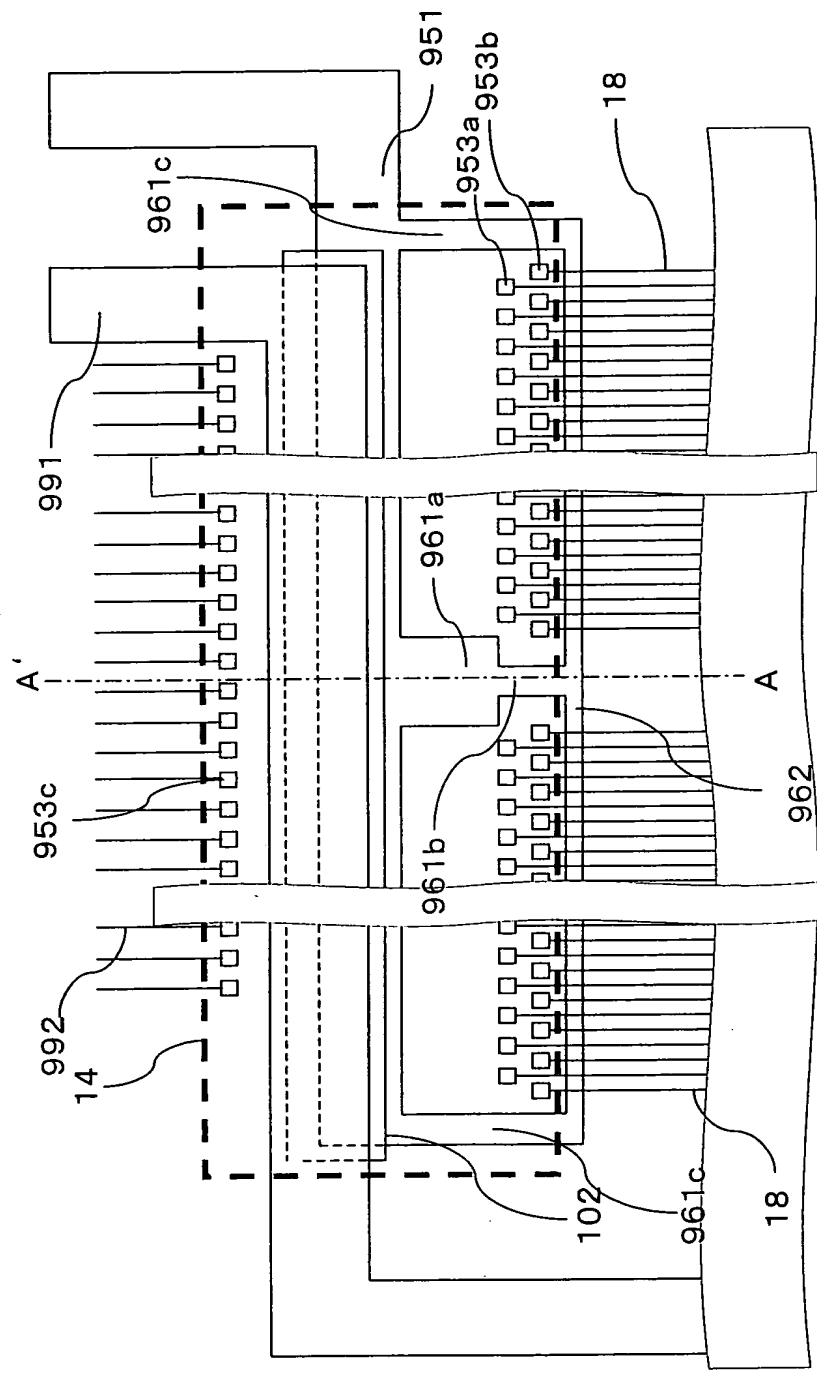


Fig. 98 (b)



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Fig. 99



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Fig. 100(a)

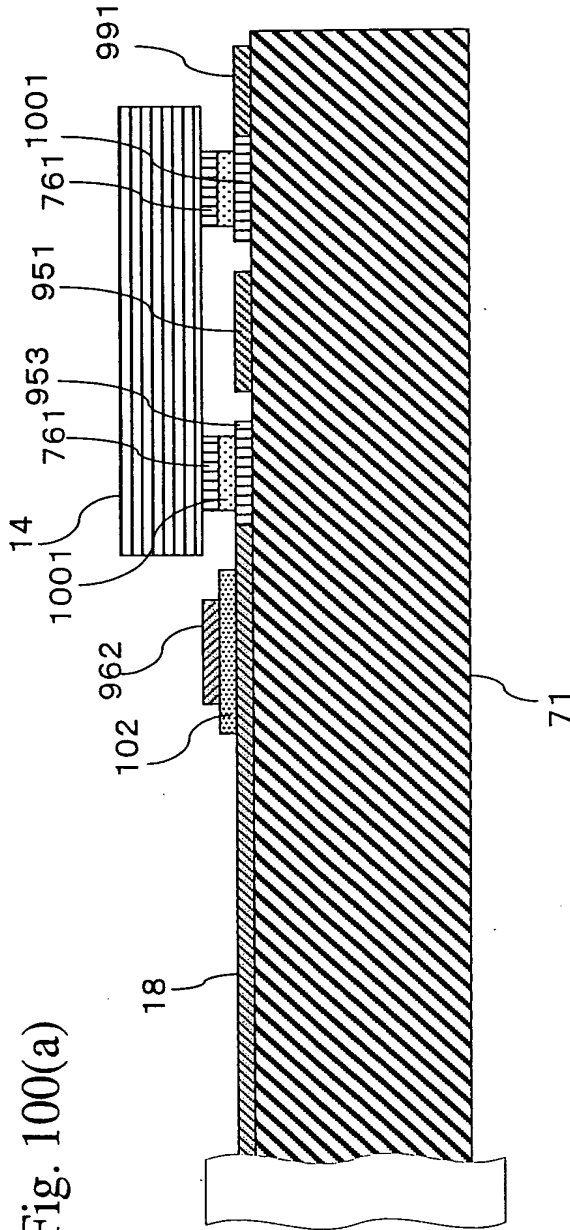


Fig. 100(b)

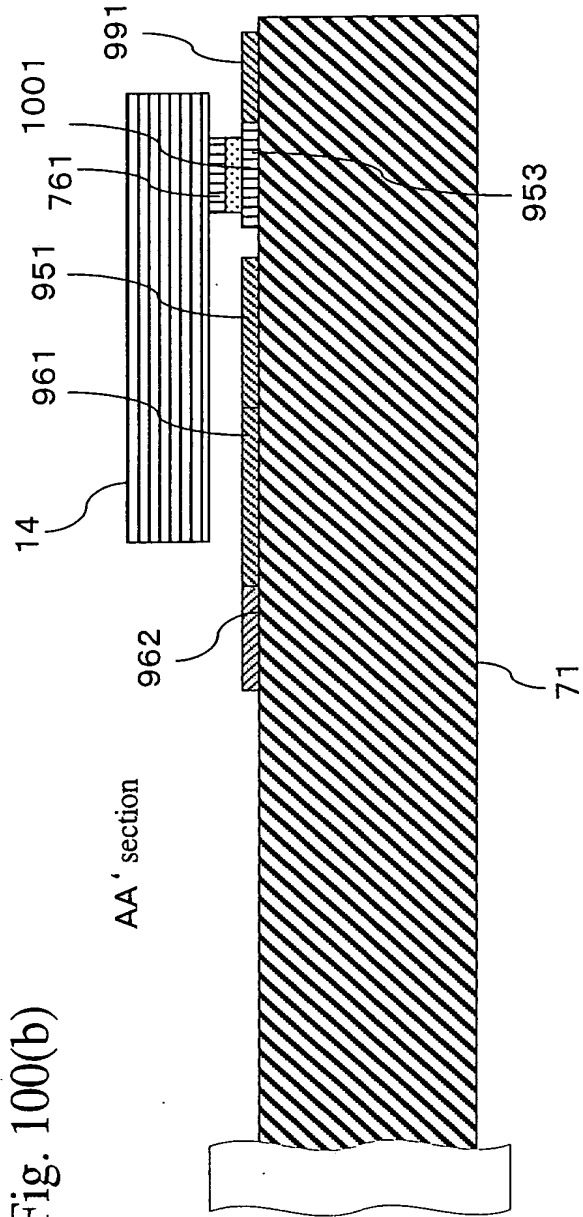
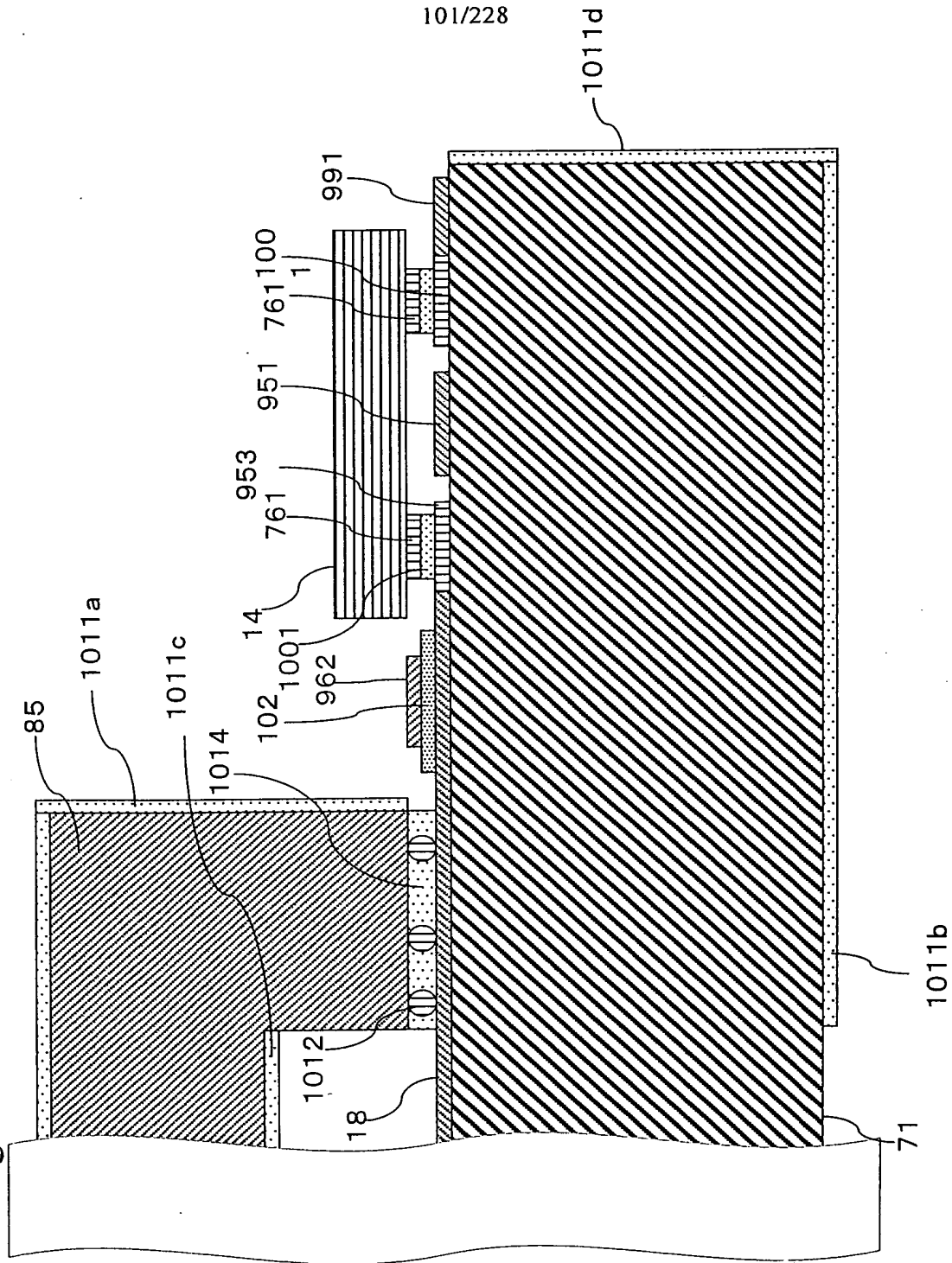


Fig. 101



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Fig. 102

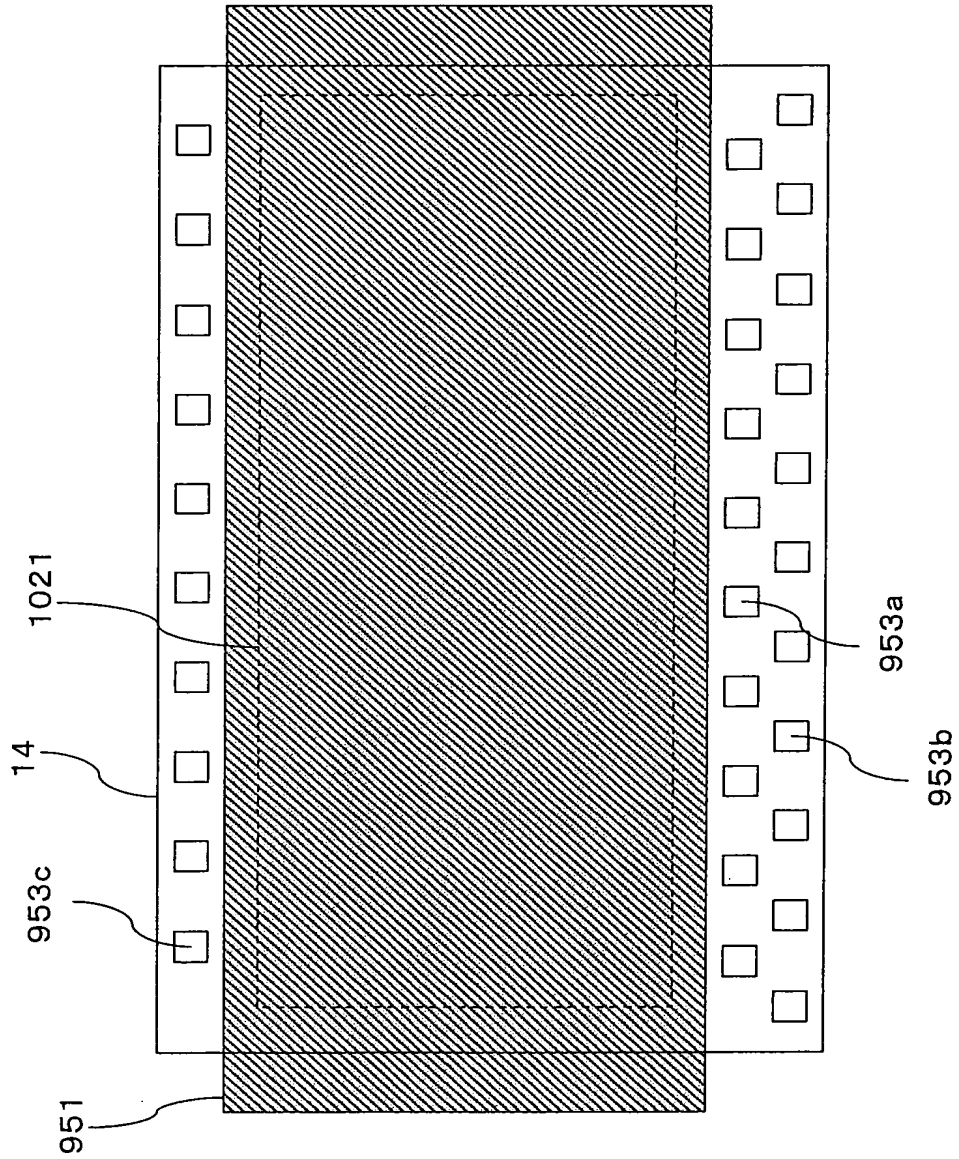
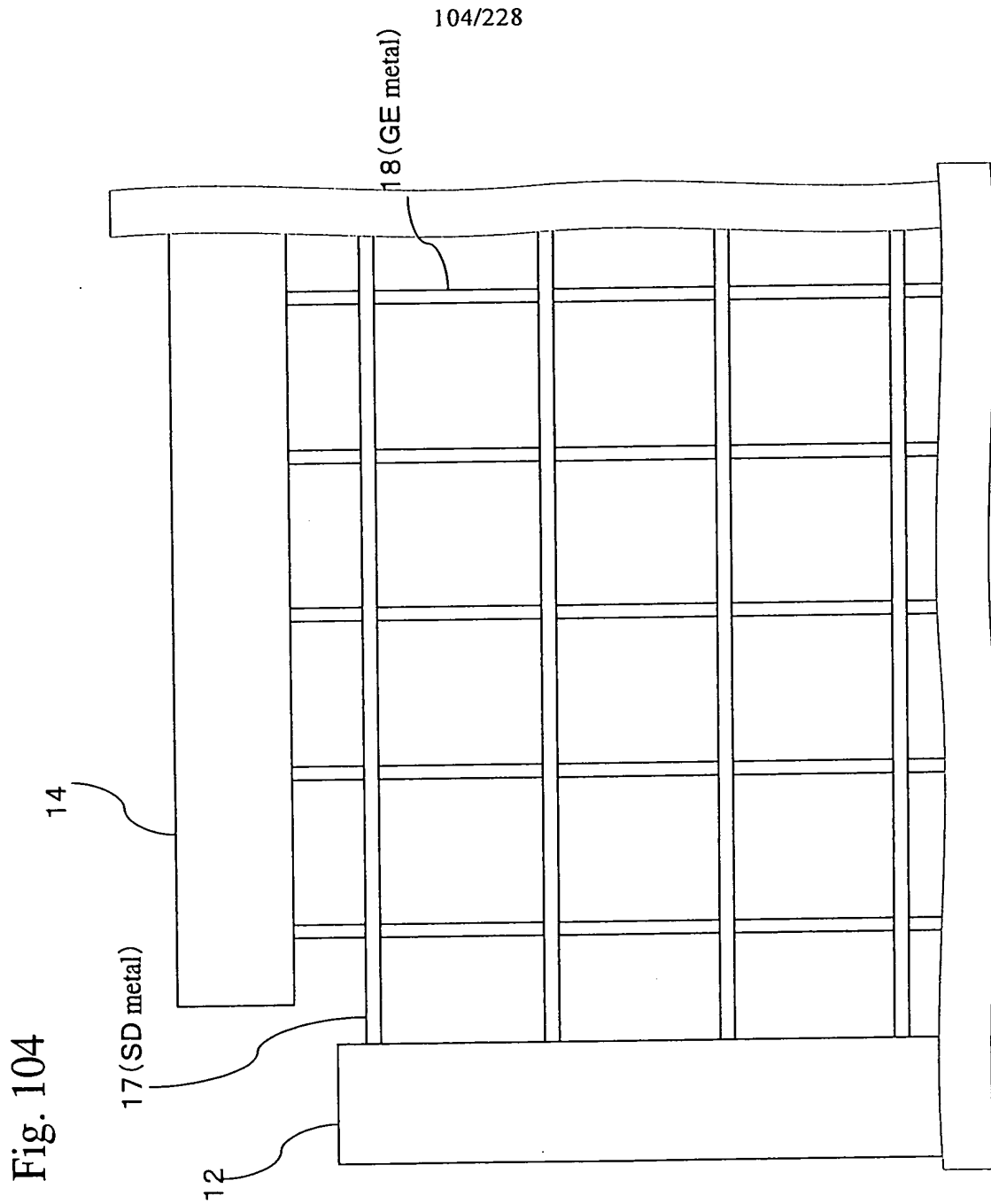


Fig. 10 is a schematic diagram of a semiconductor device, showing a cross-section of a substrate with various layers and structures. The diagram includes labels for components such as 12a, 12b, 14, 16, 17a, 17b, 18, 50, 951, 952, 953a, 953b, 953c, 961a, 961b, 961c, 971, and 992. It also shows cross-sectional lines A-A, K-K, and M-M.

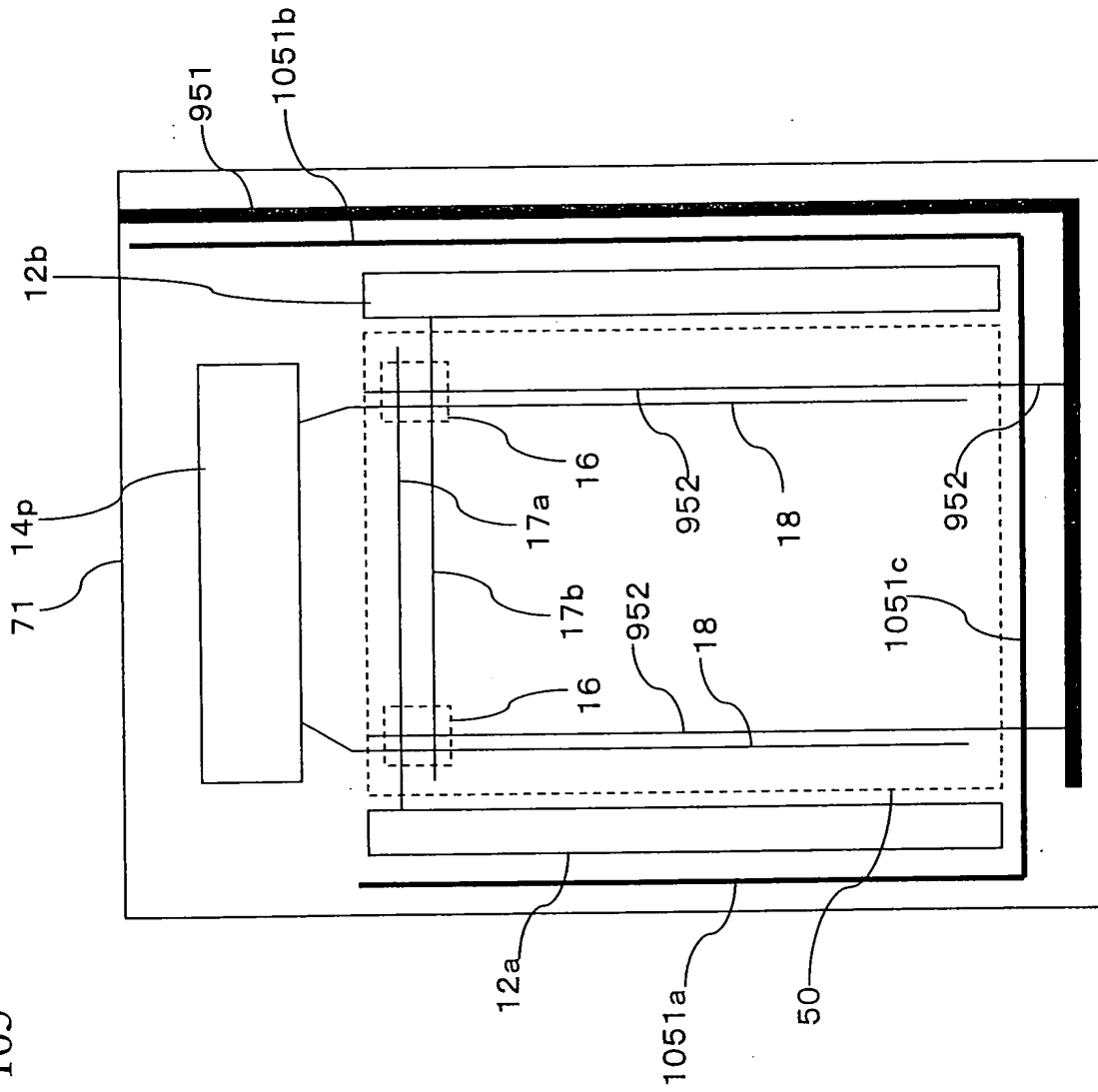
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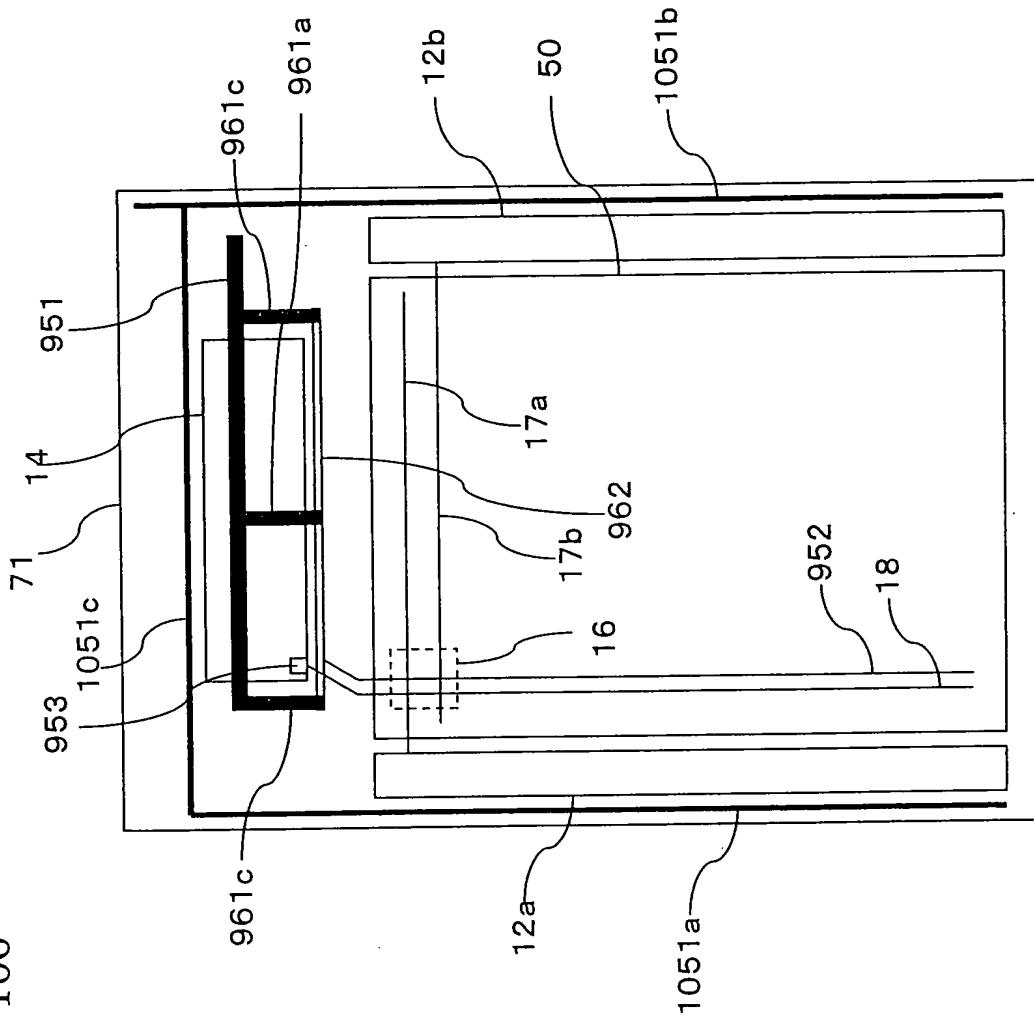
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Fig. 105



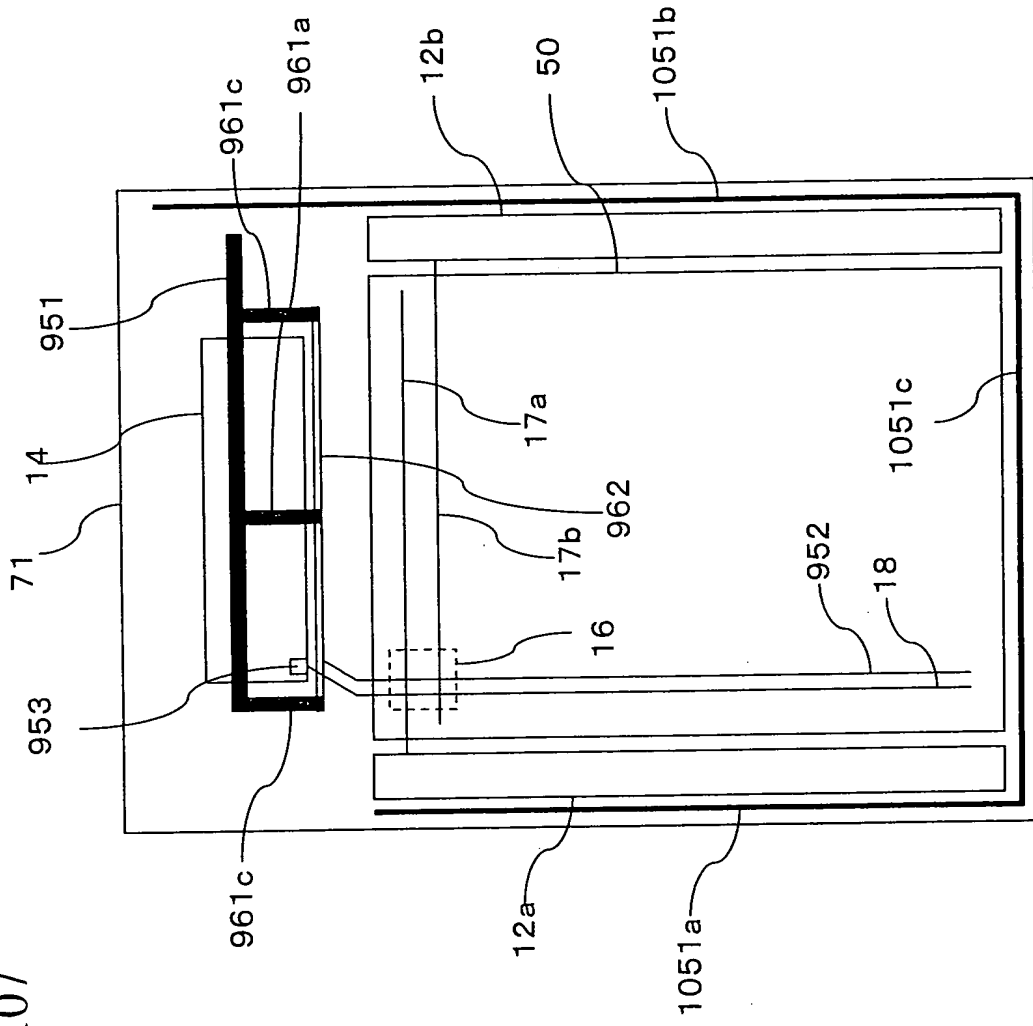
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Fig. 106



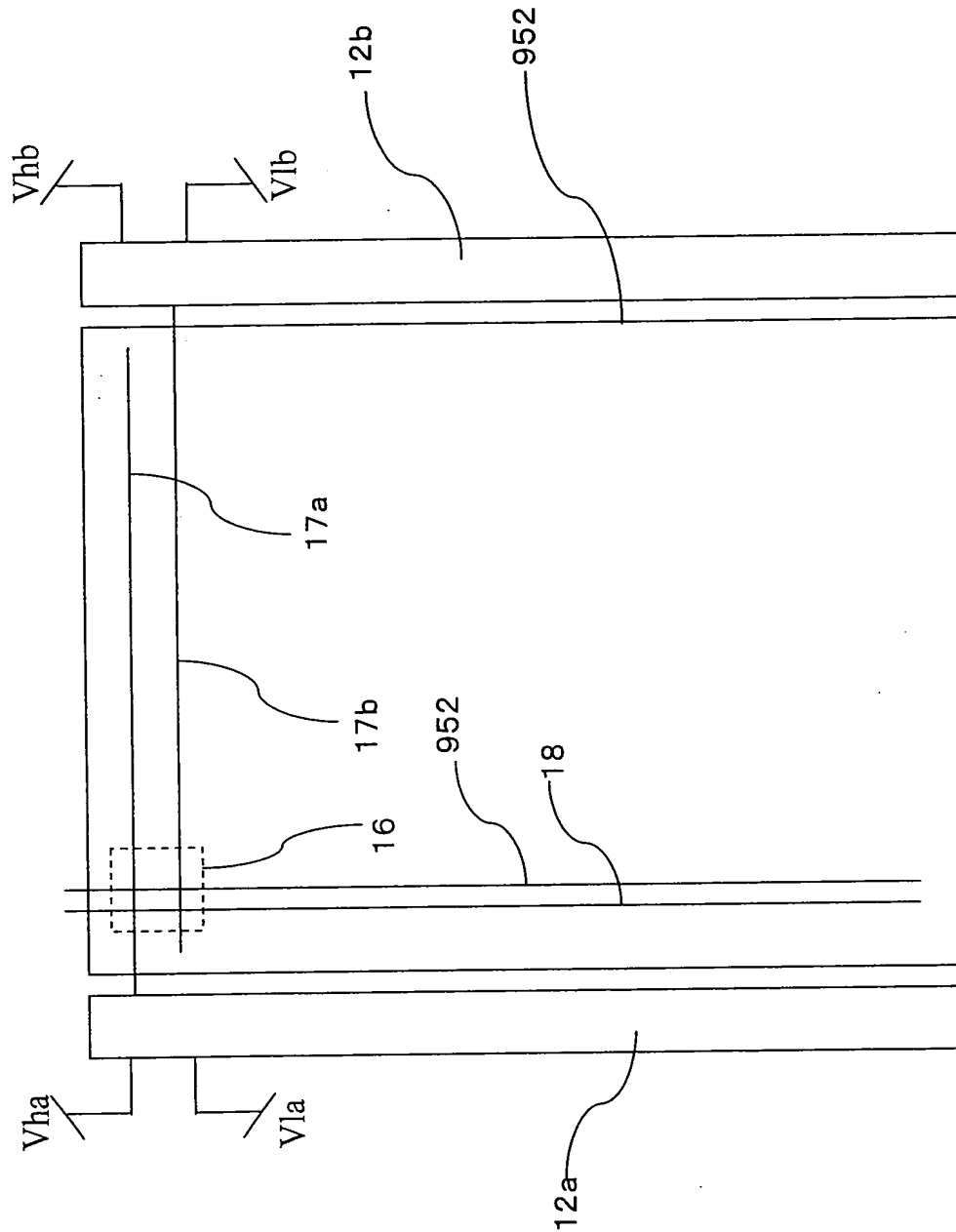
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Fig. 107



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Fig. 108



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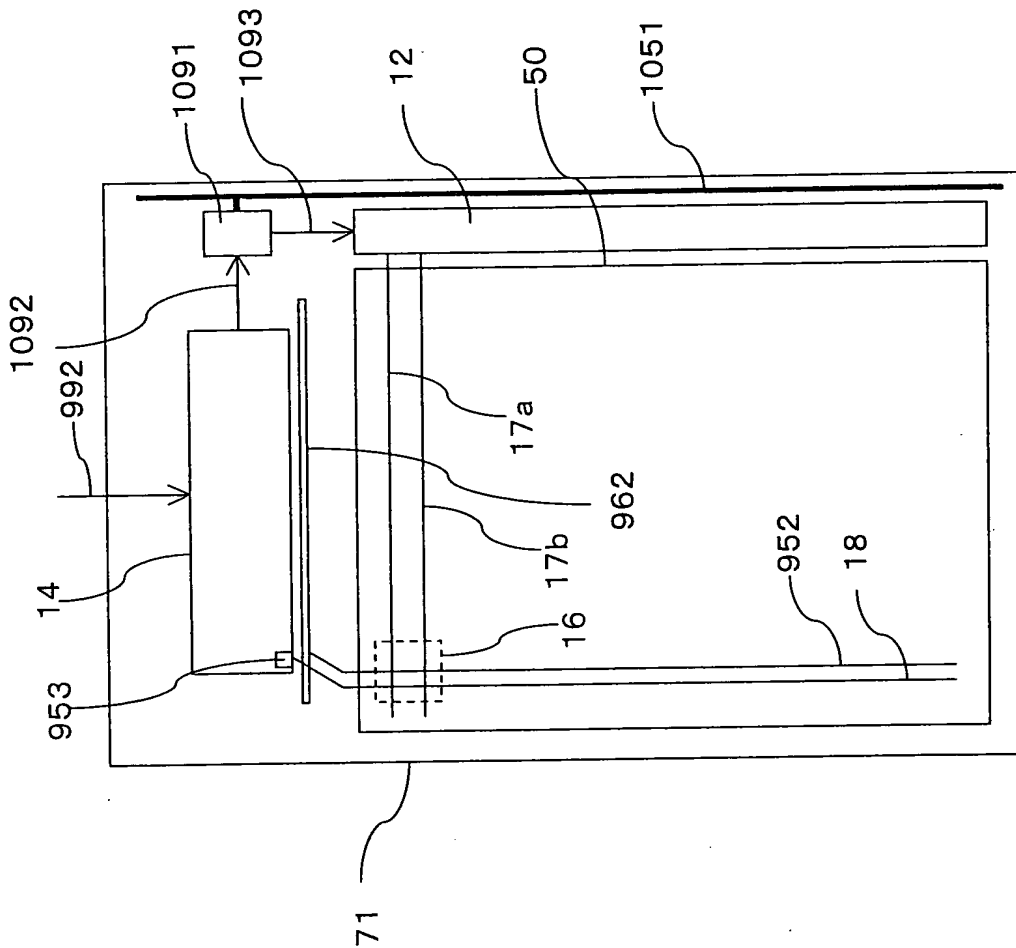
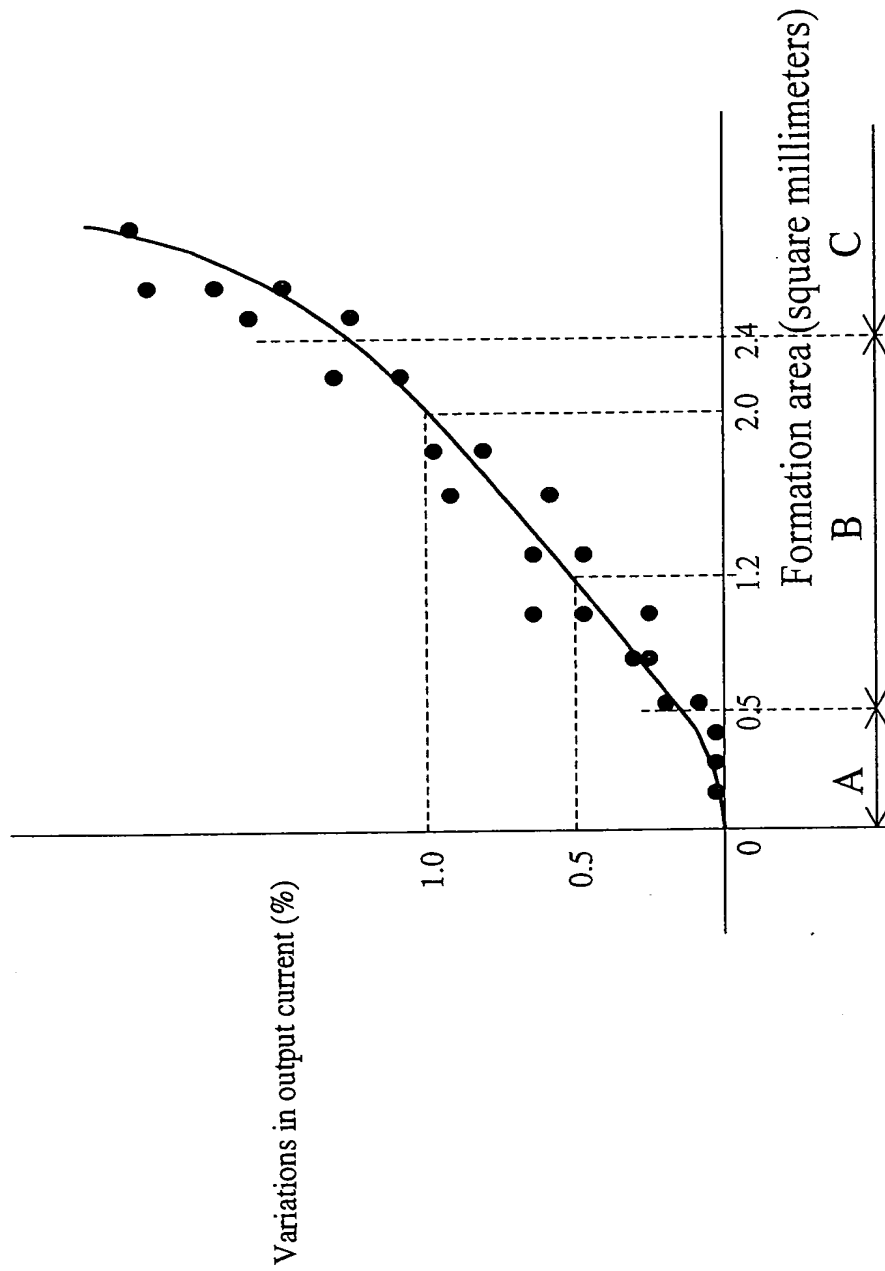


Fig. 109

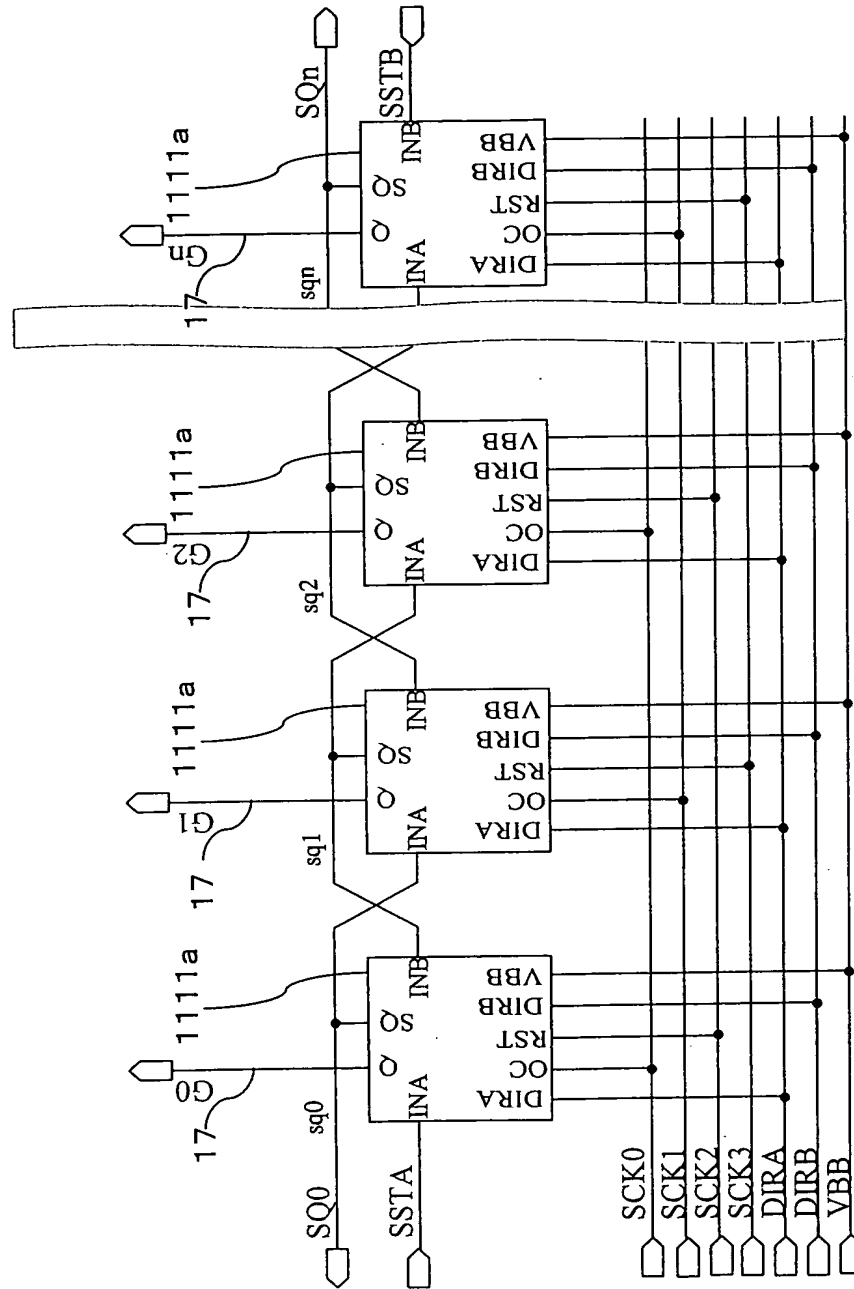
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Fig. 110



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Fig. 111



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Fig. 112

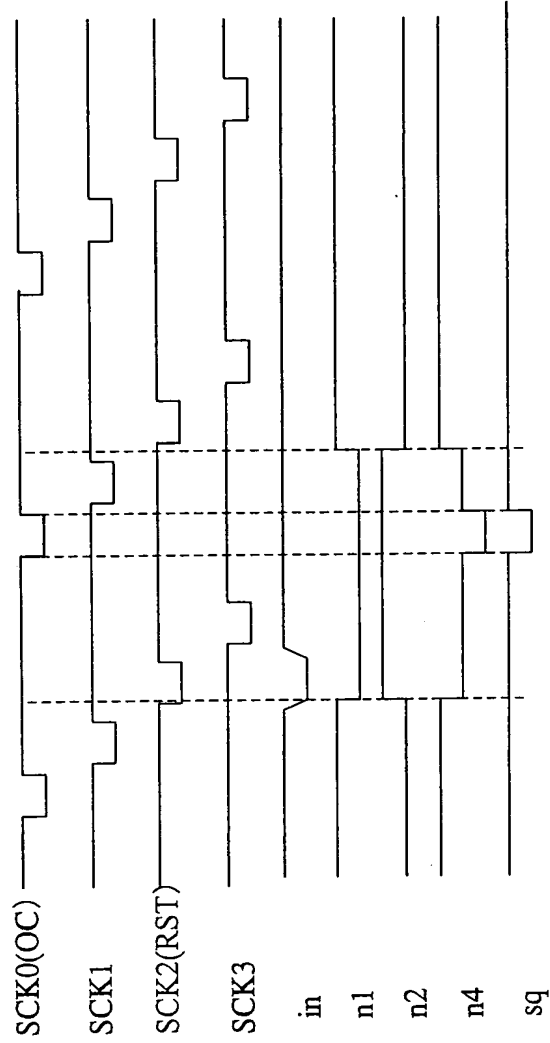
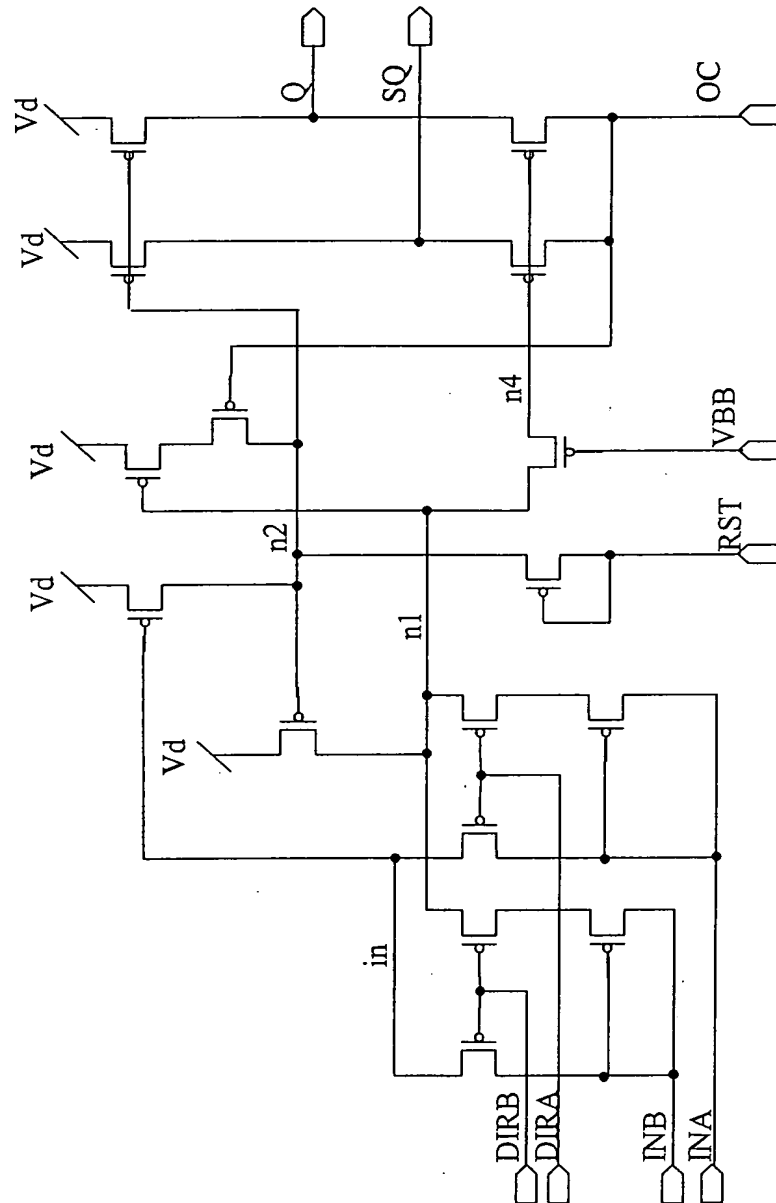


Fig. 113



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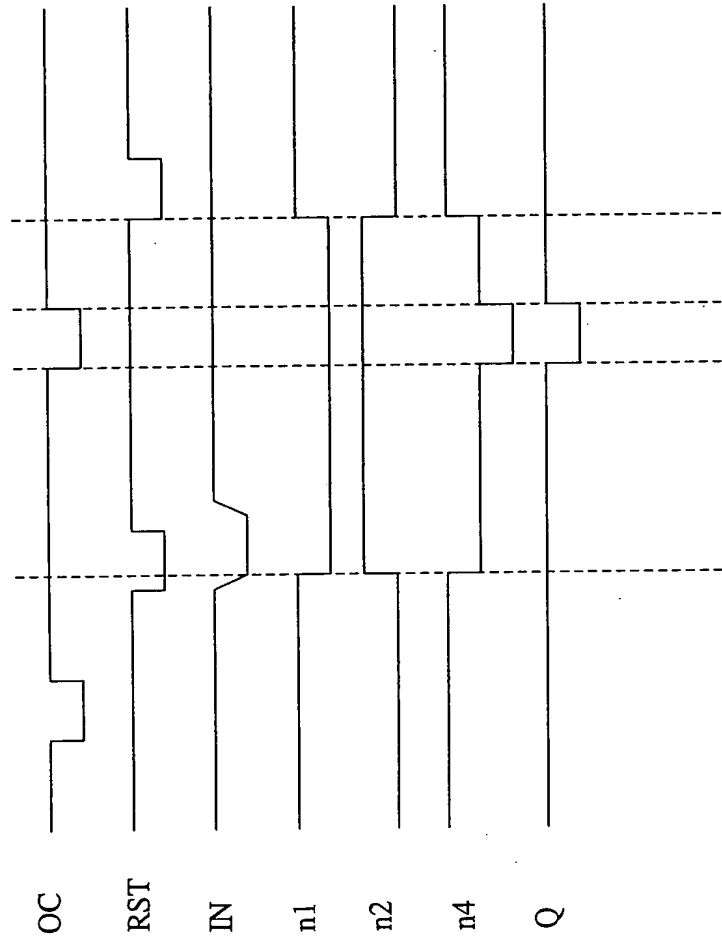


Fig. 114

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Fig. 115 (b)

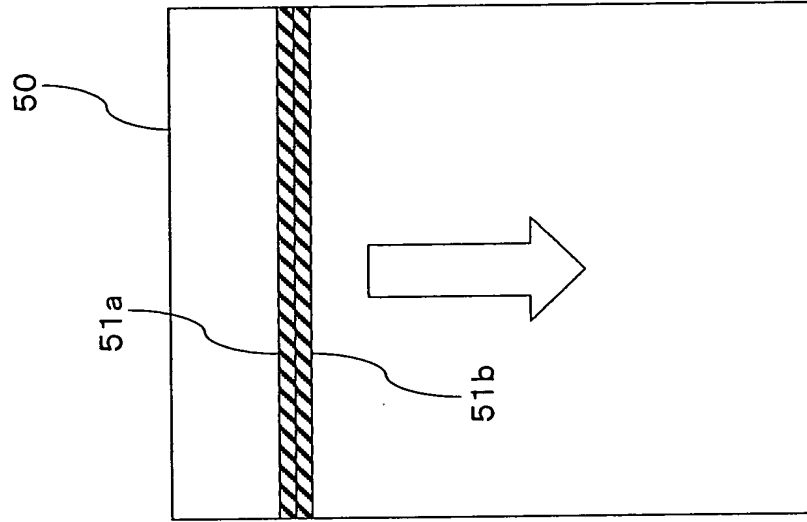
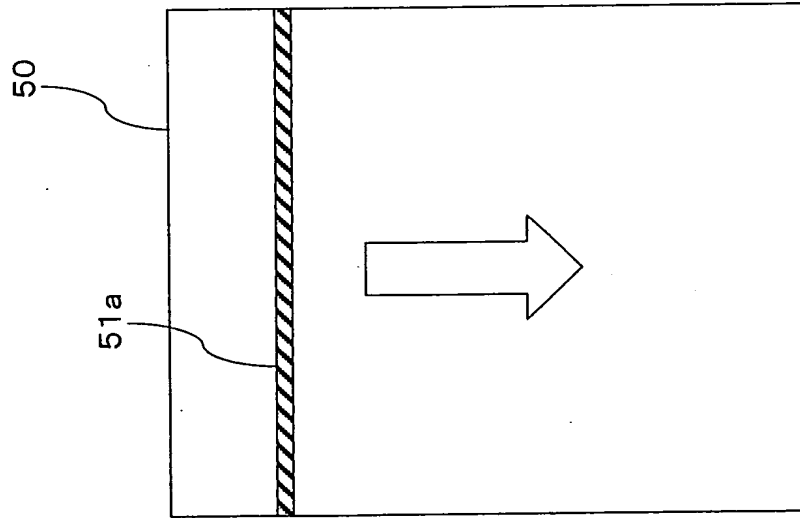


Fig. 115 (a)



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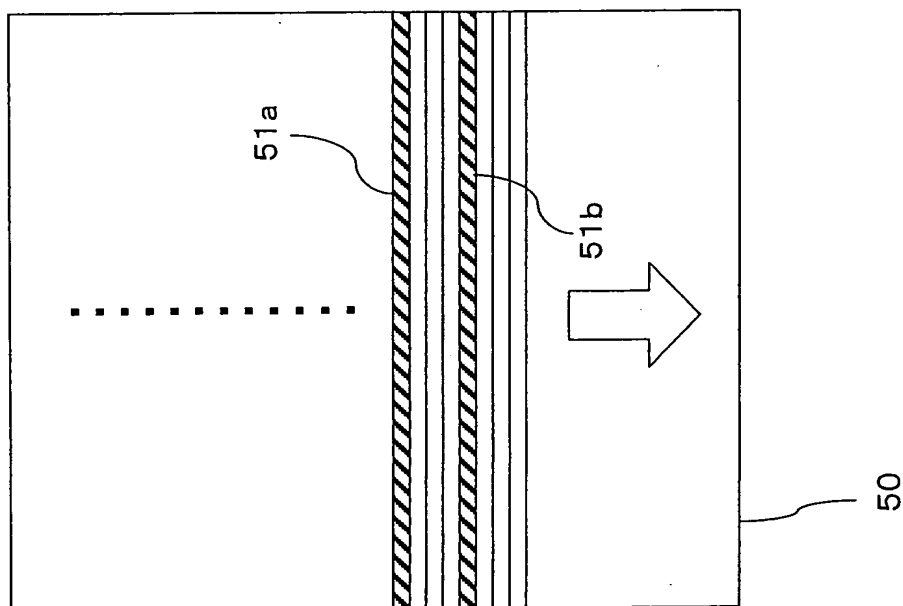
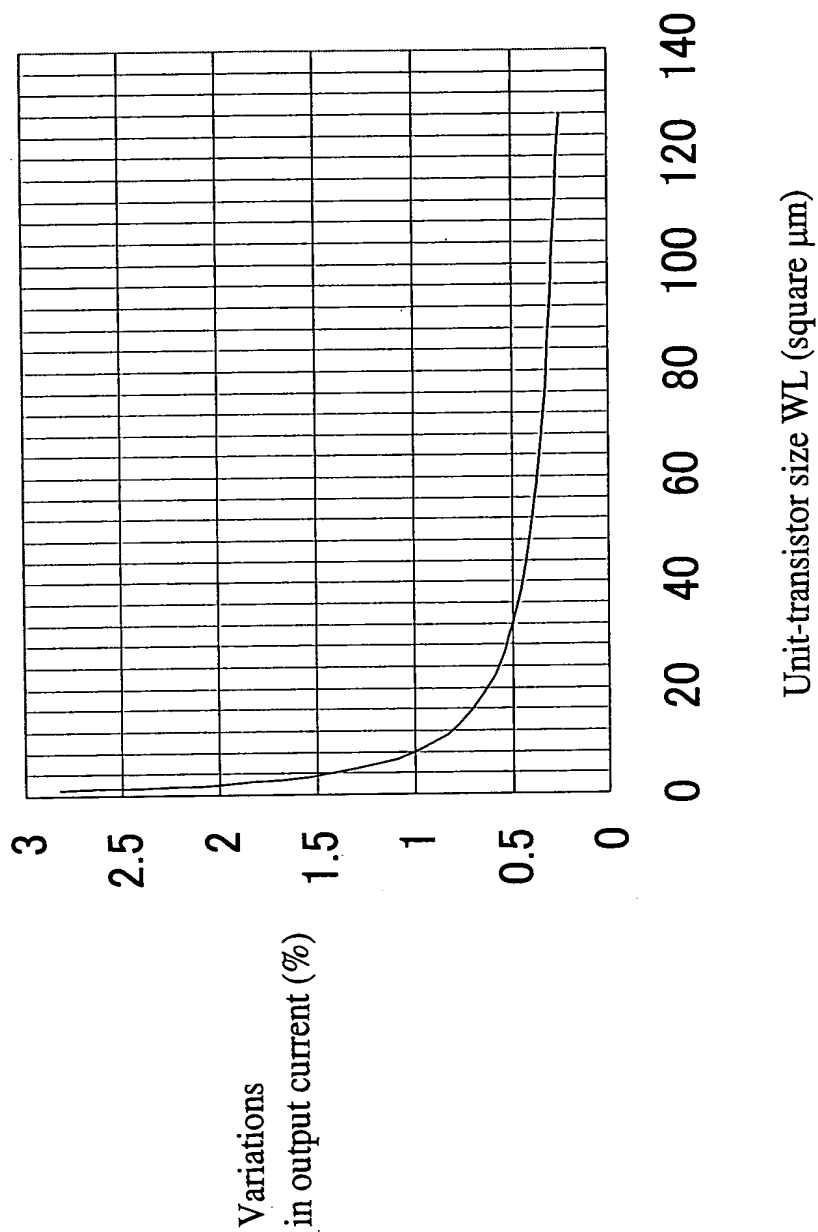


Fig. 116

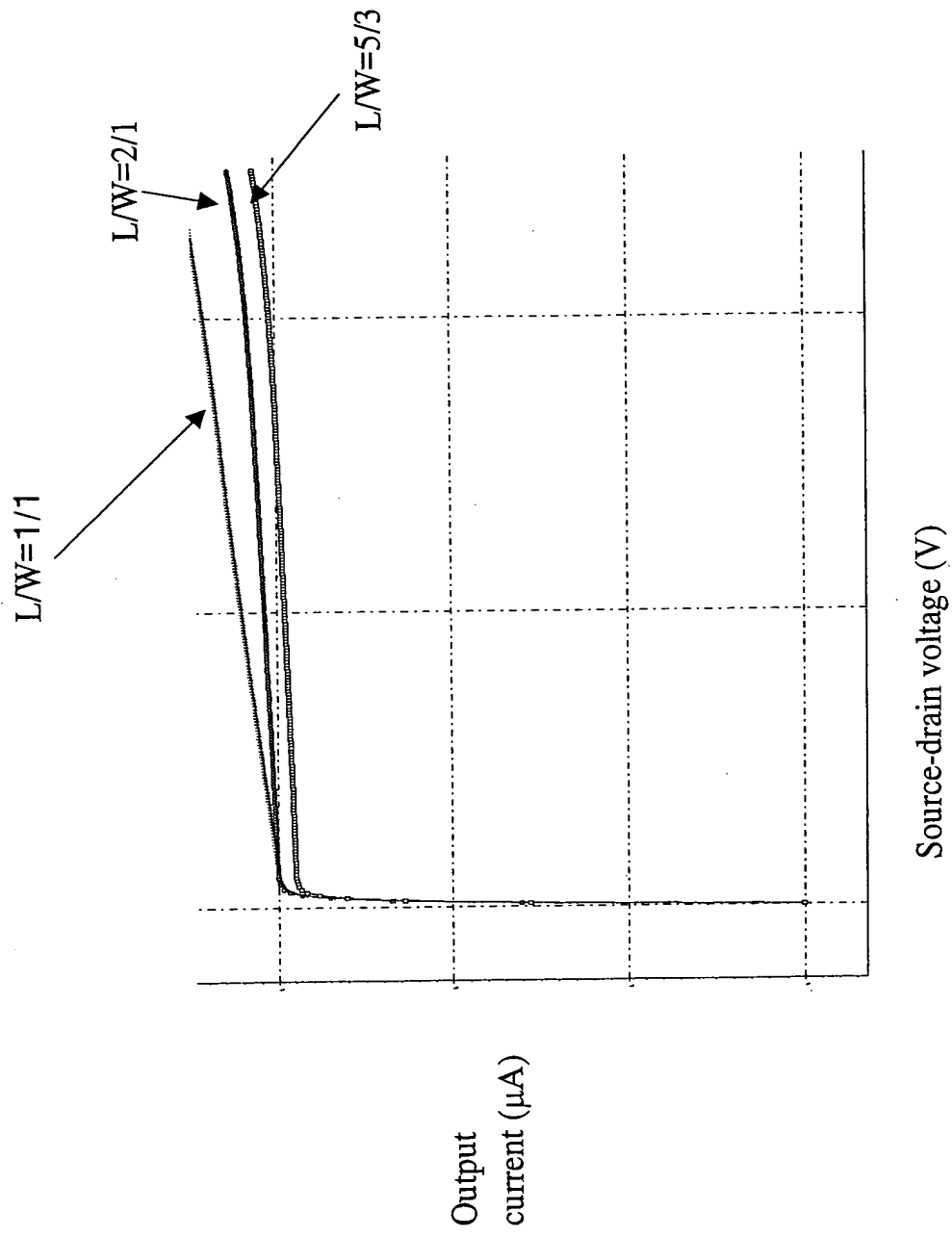
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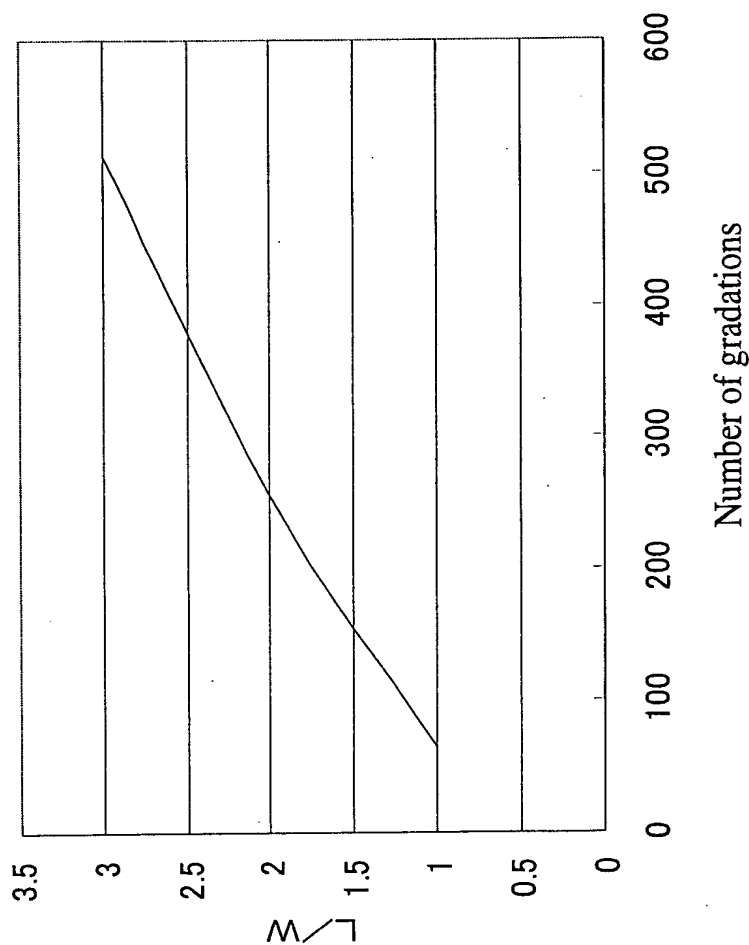
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Fig. 118



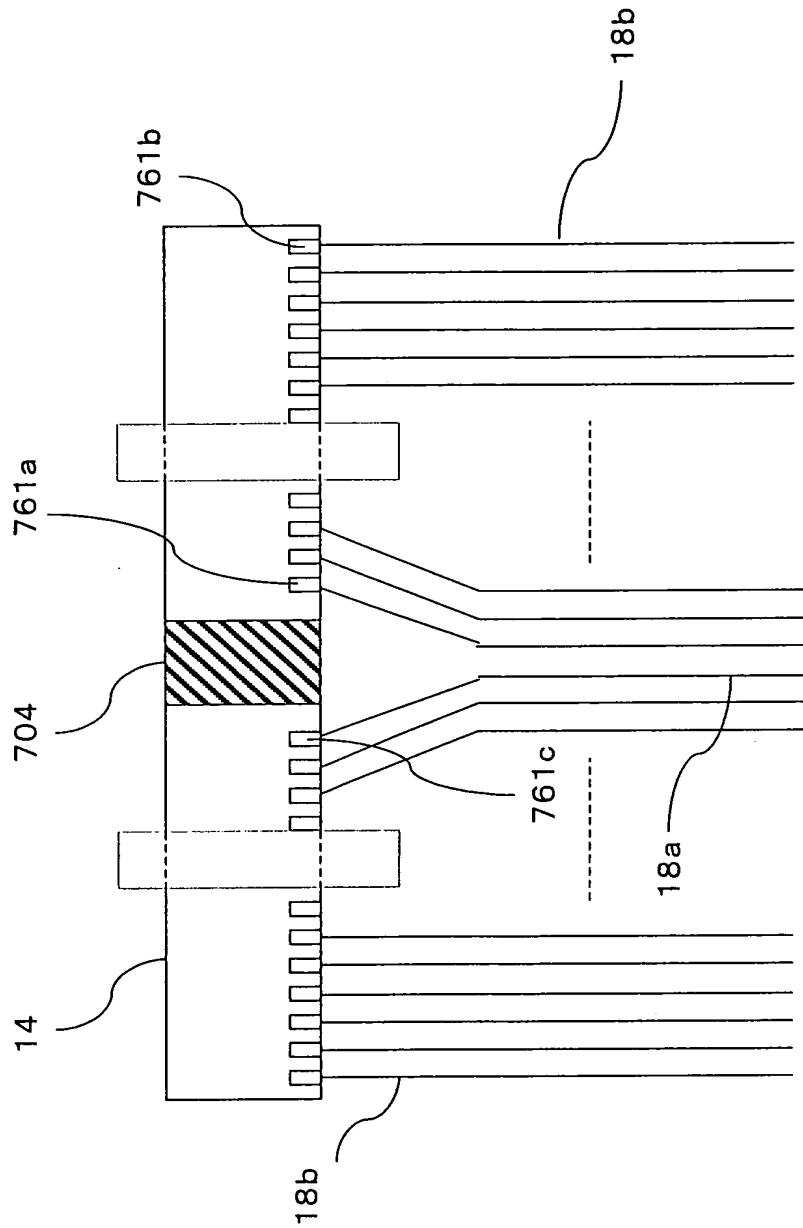
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Fig. 119



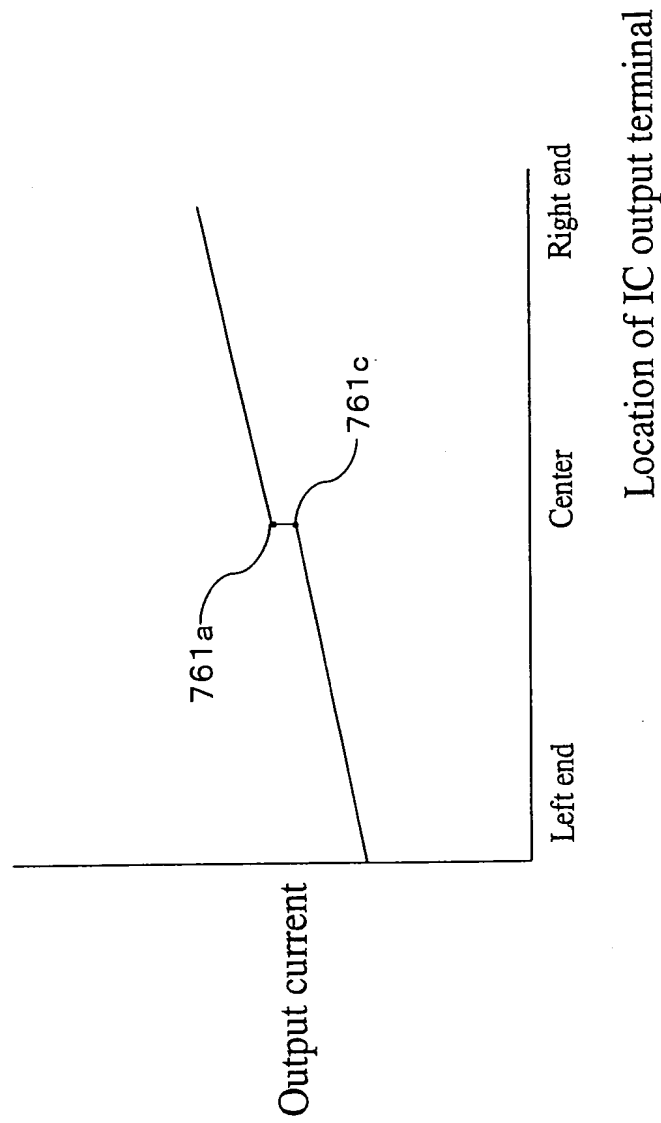
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Fig. 120

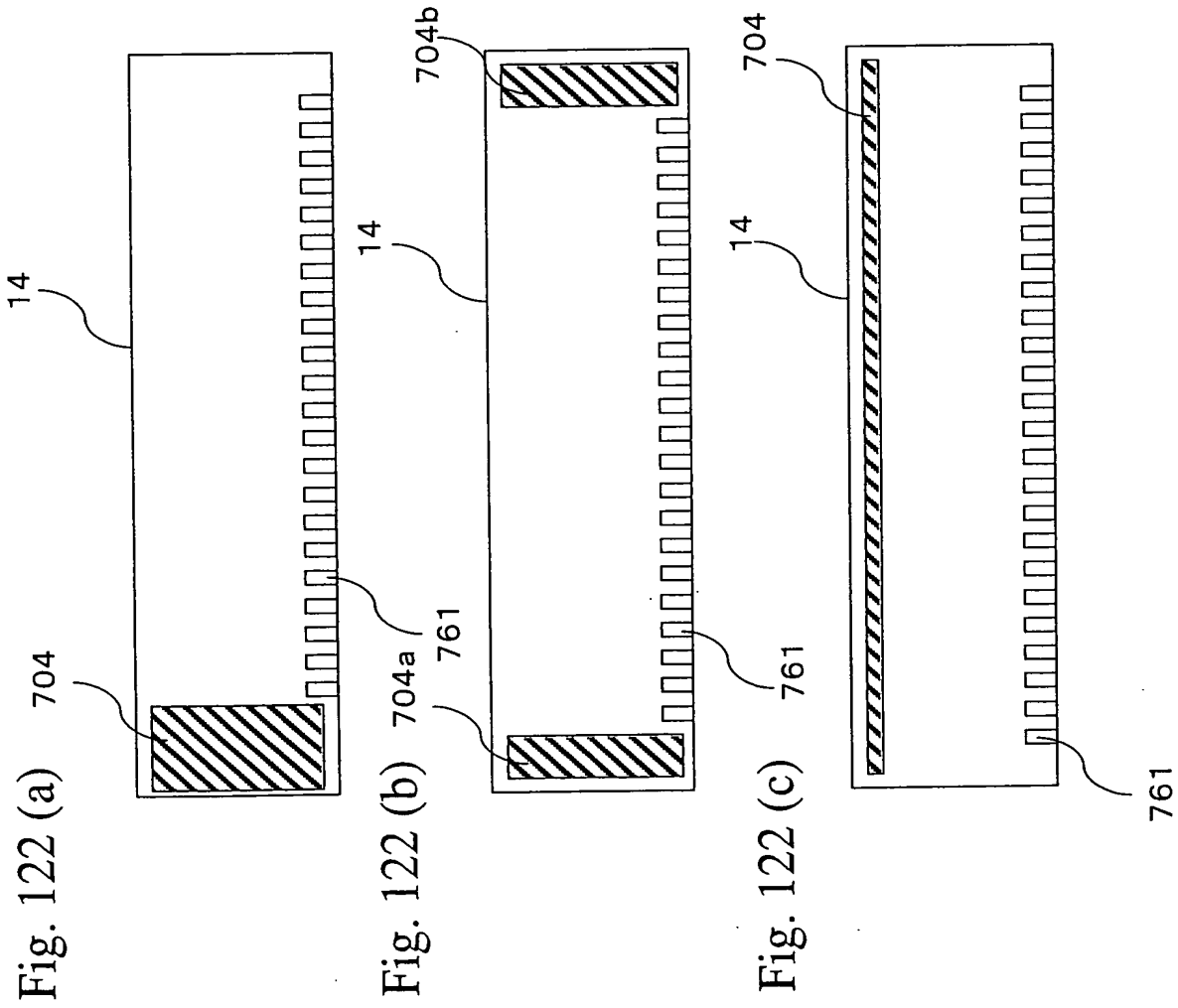


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Fig. 121



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Fig. 123

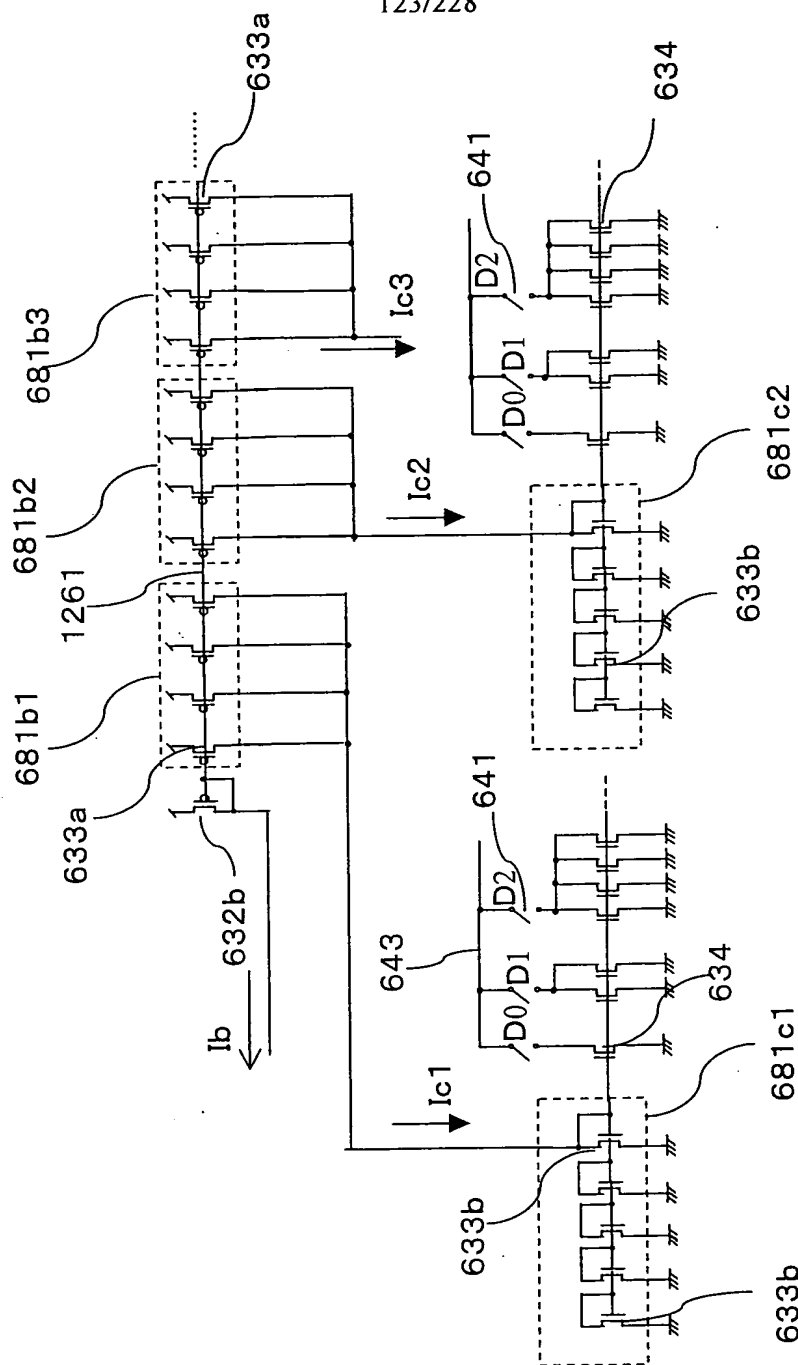
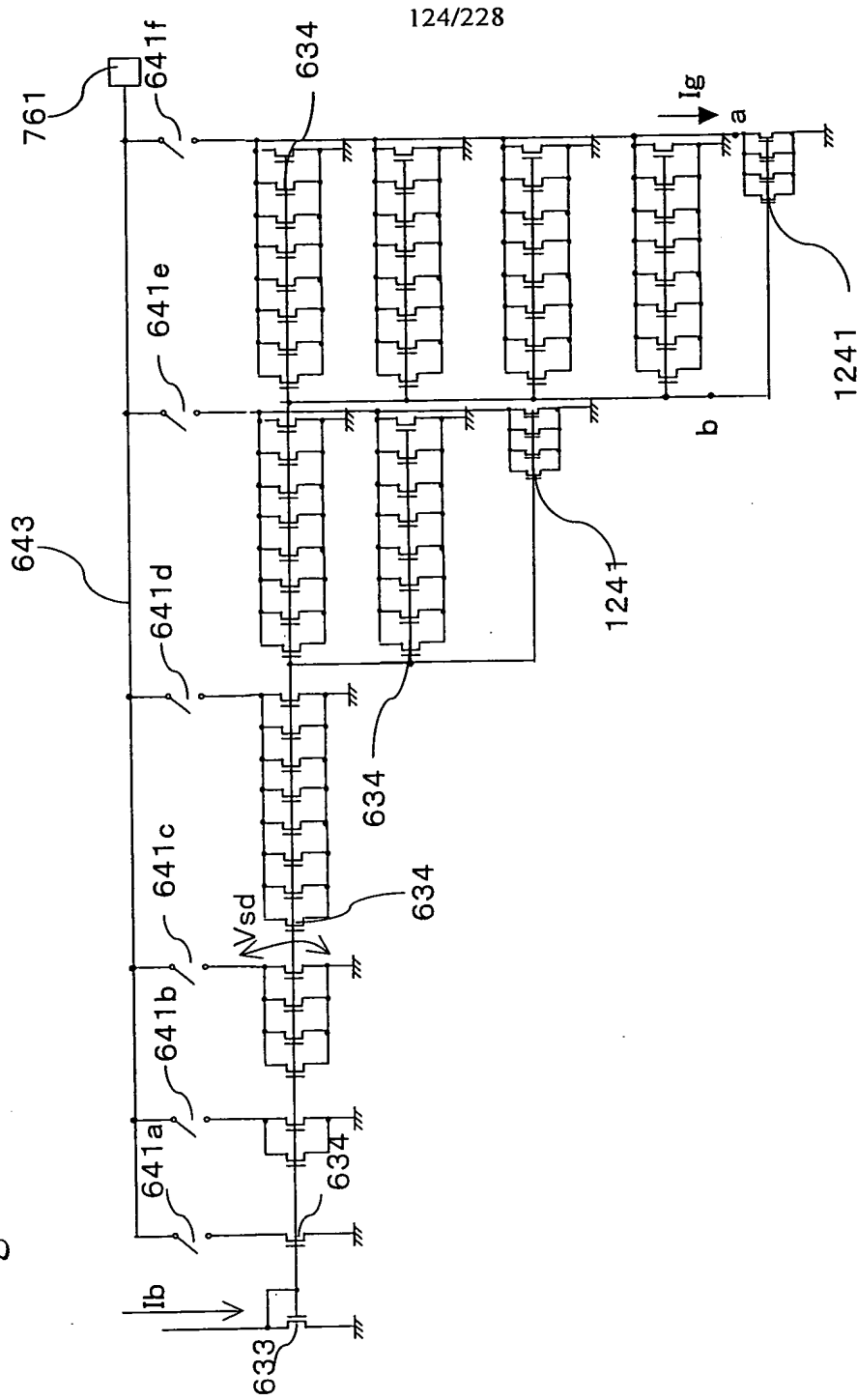


Fig. 124



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Fig. 125

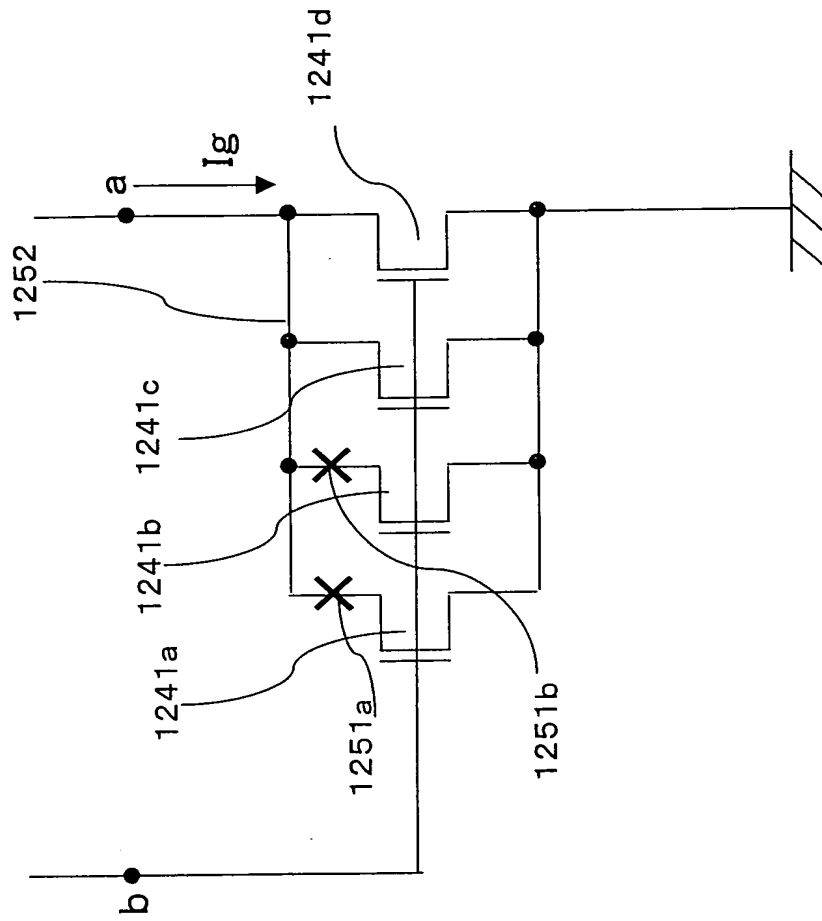


Fig. 126

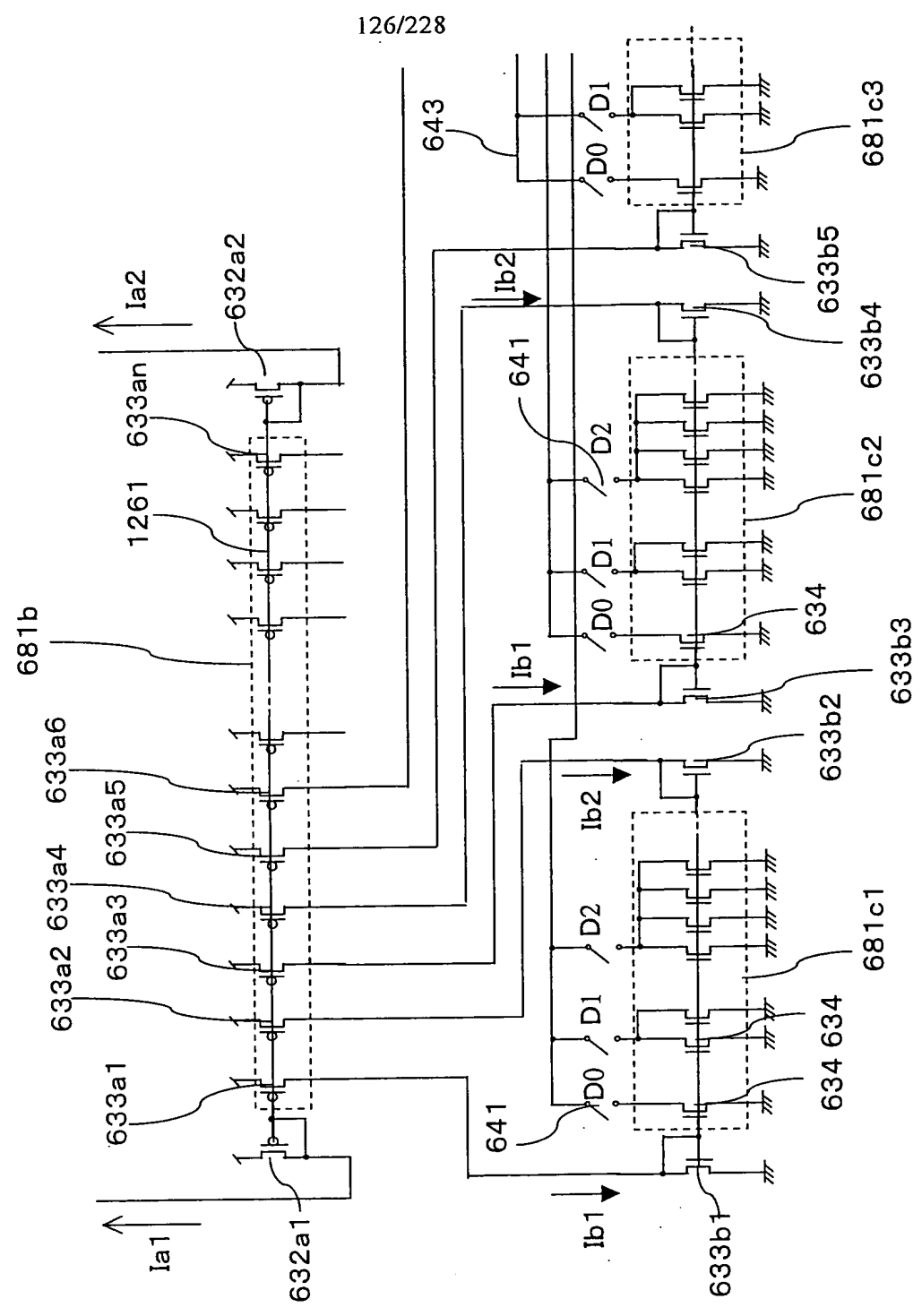
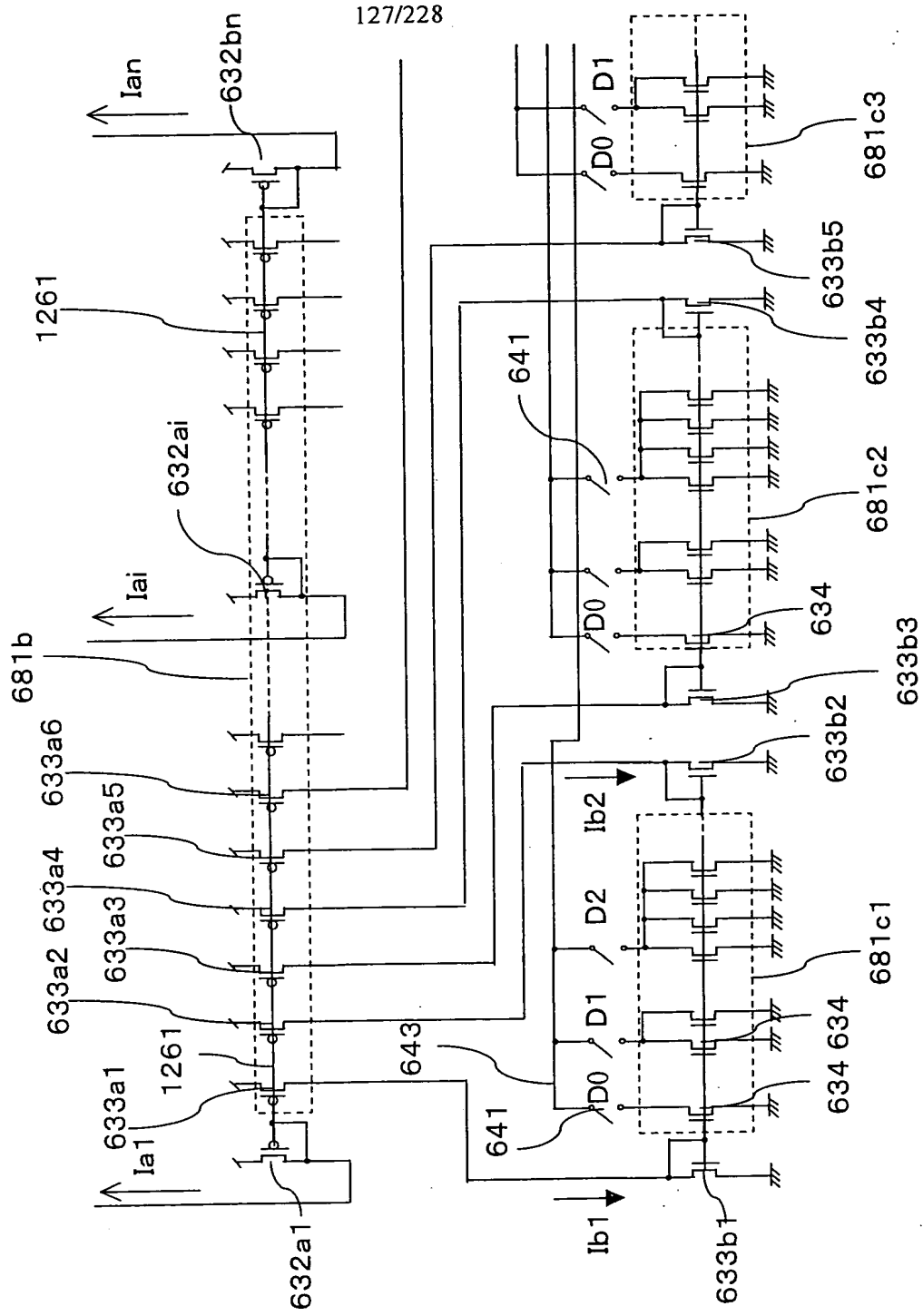


Fig. 127



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Fig. 128

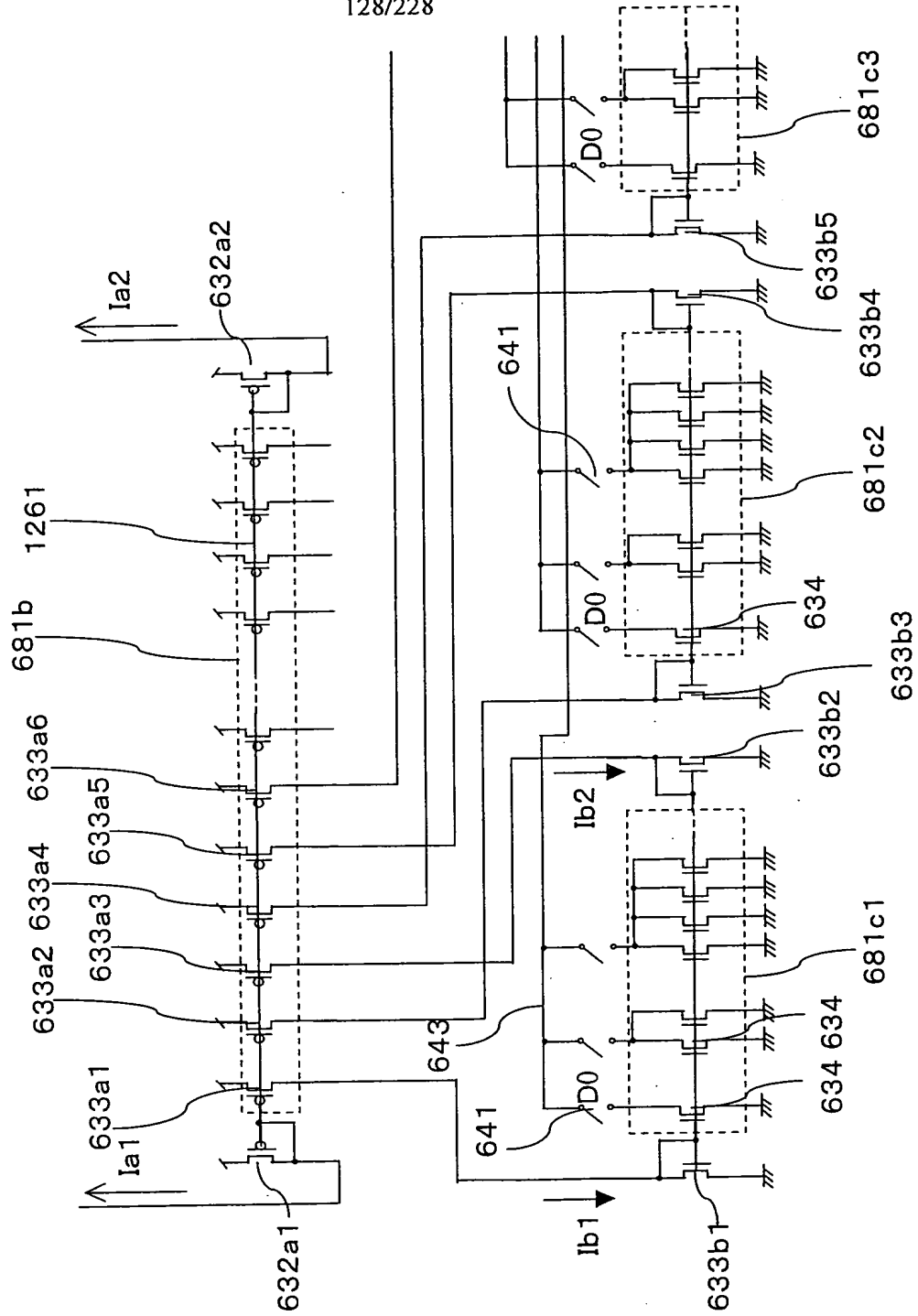
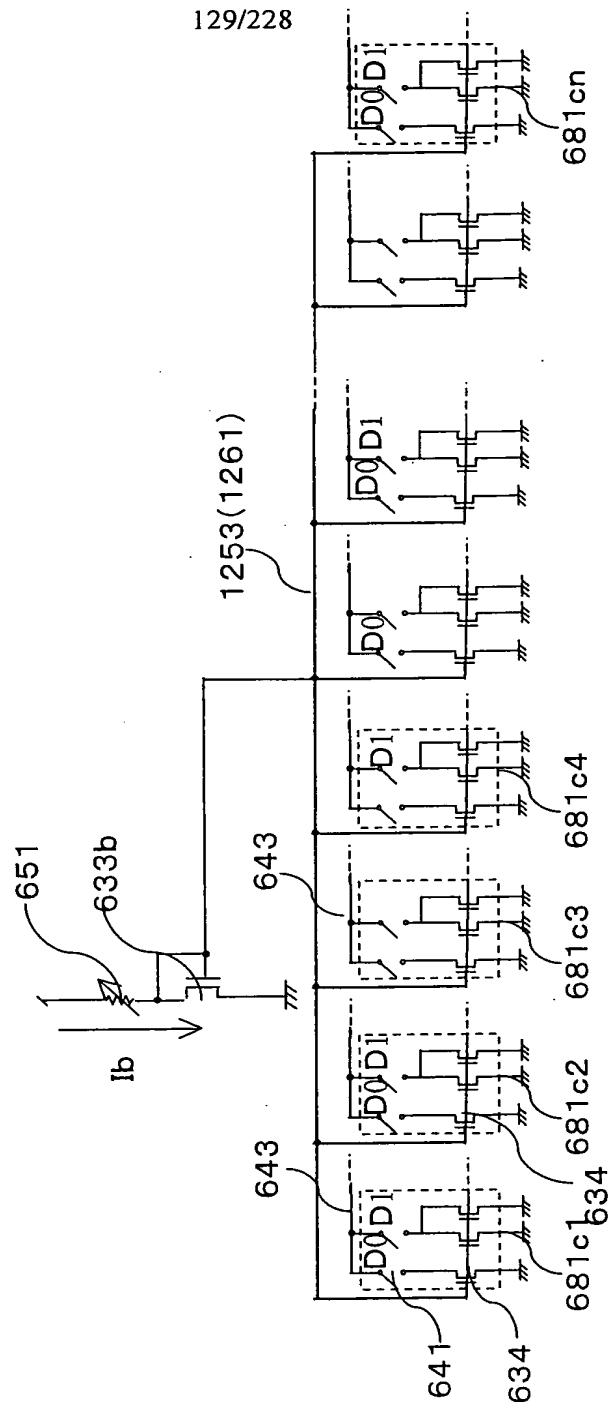
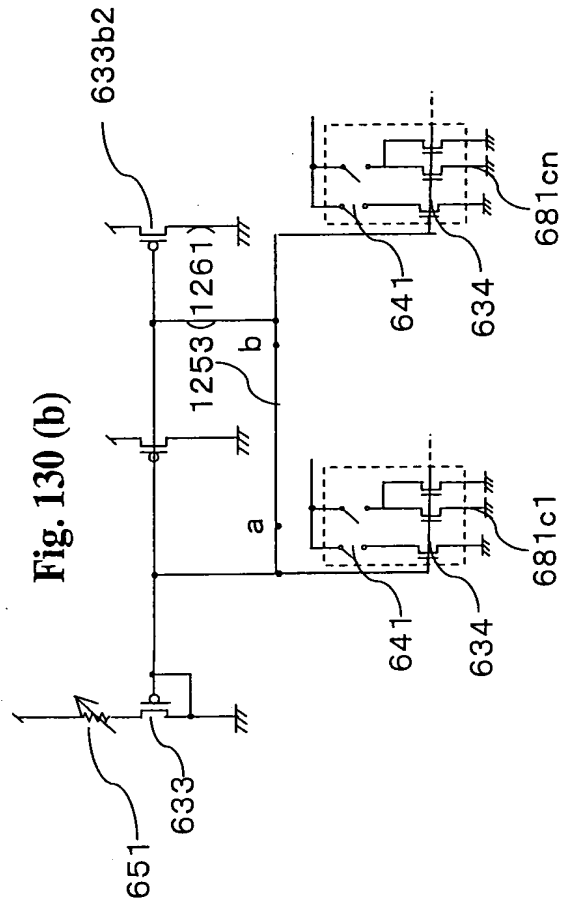
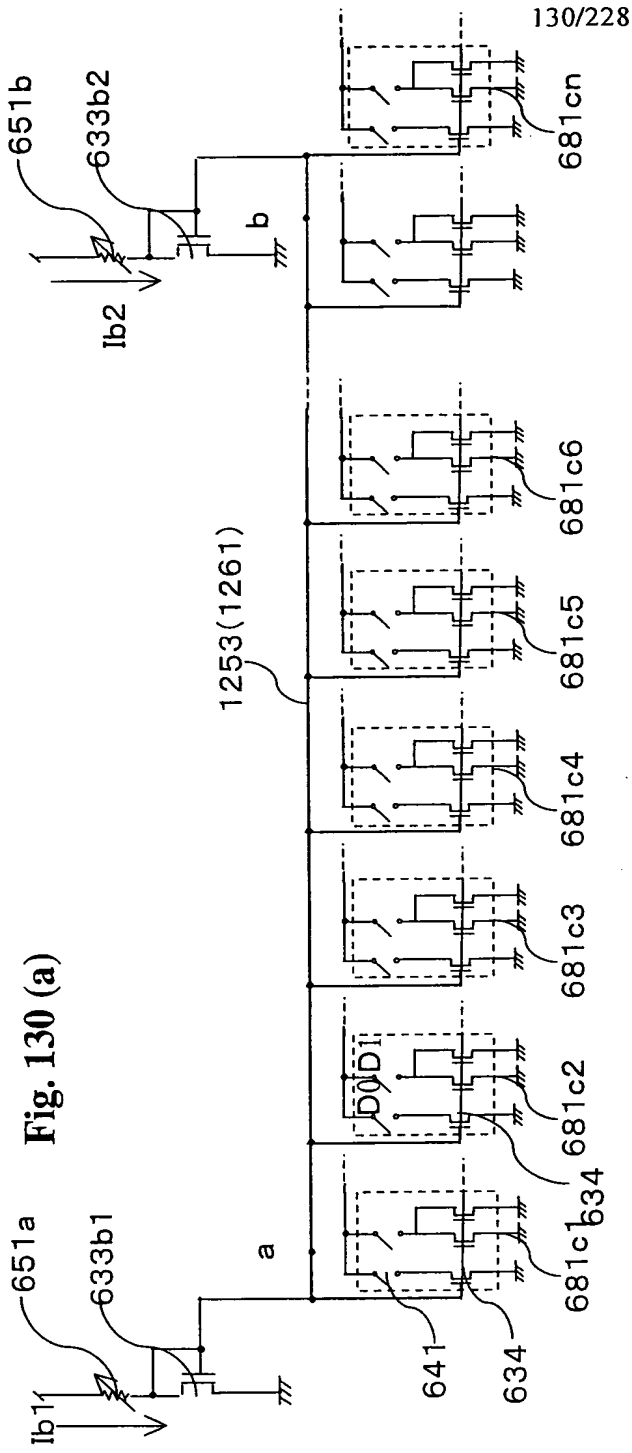


Fig. 129





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Fig. 131 (a)

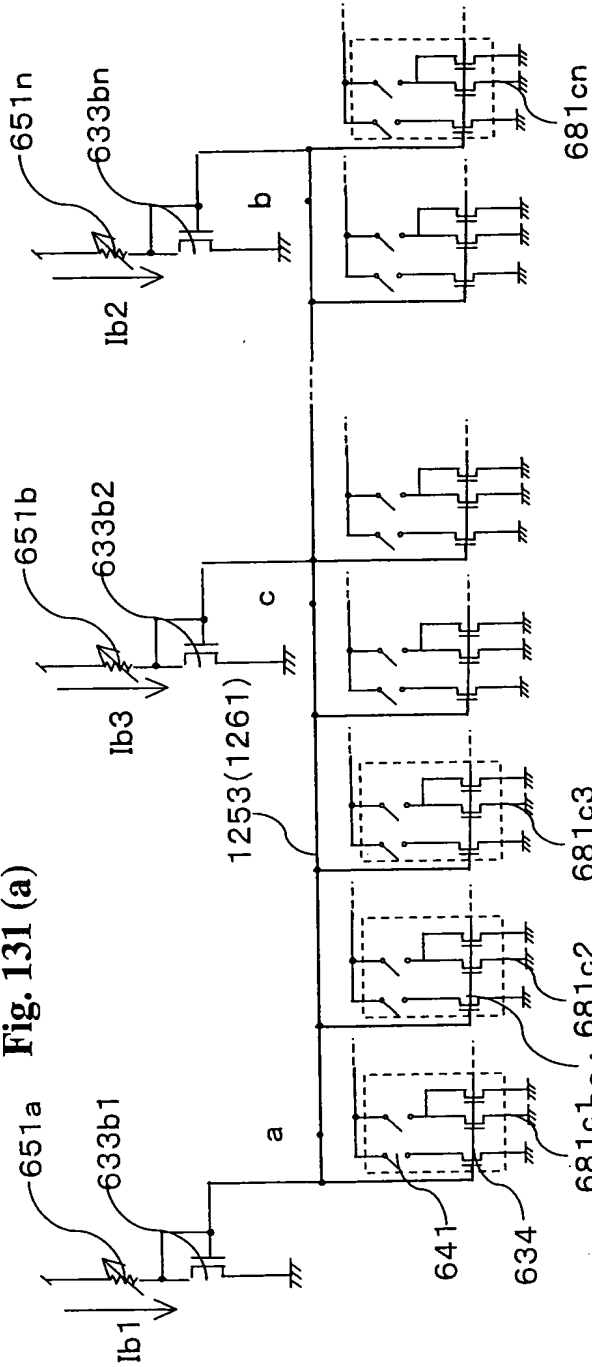
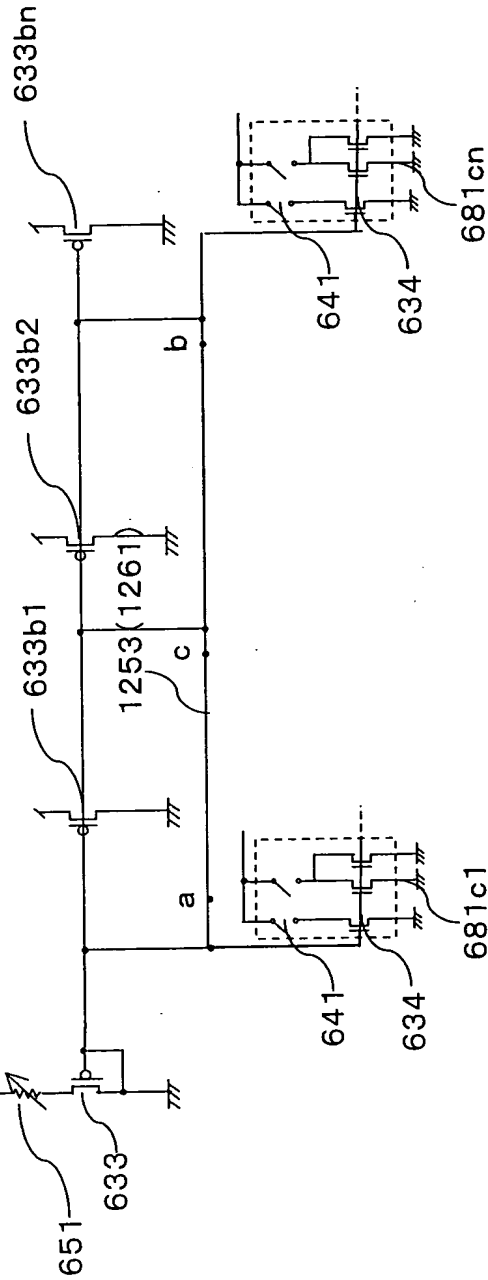
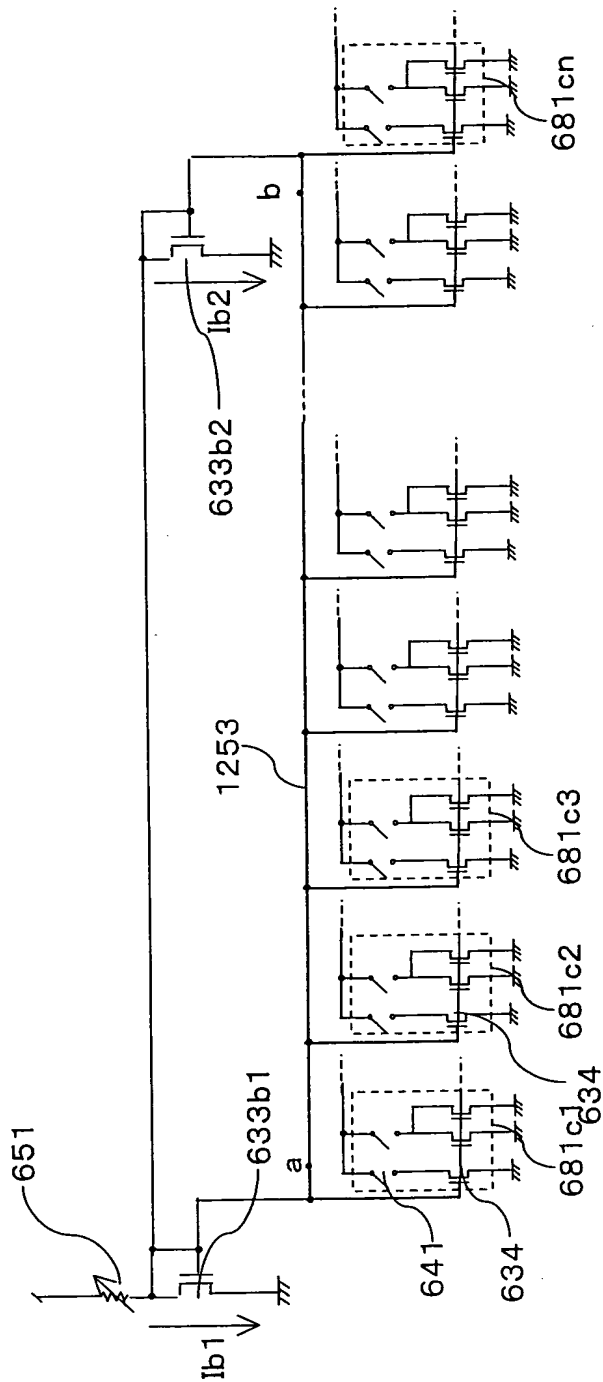


Fig. 131 (b)



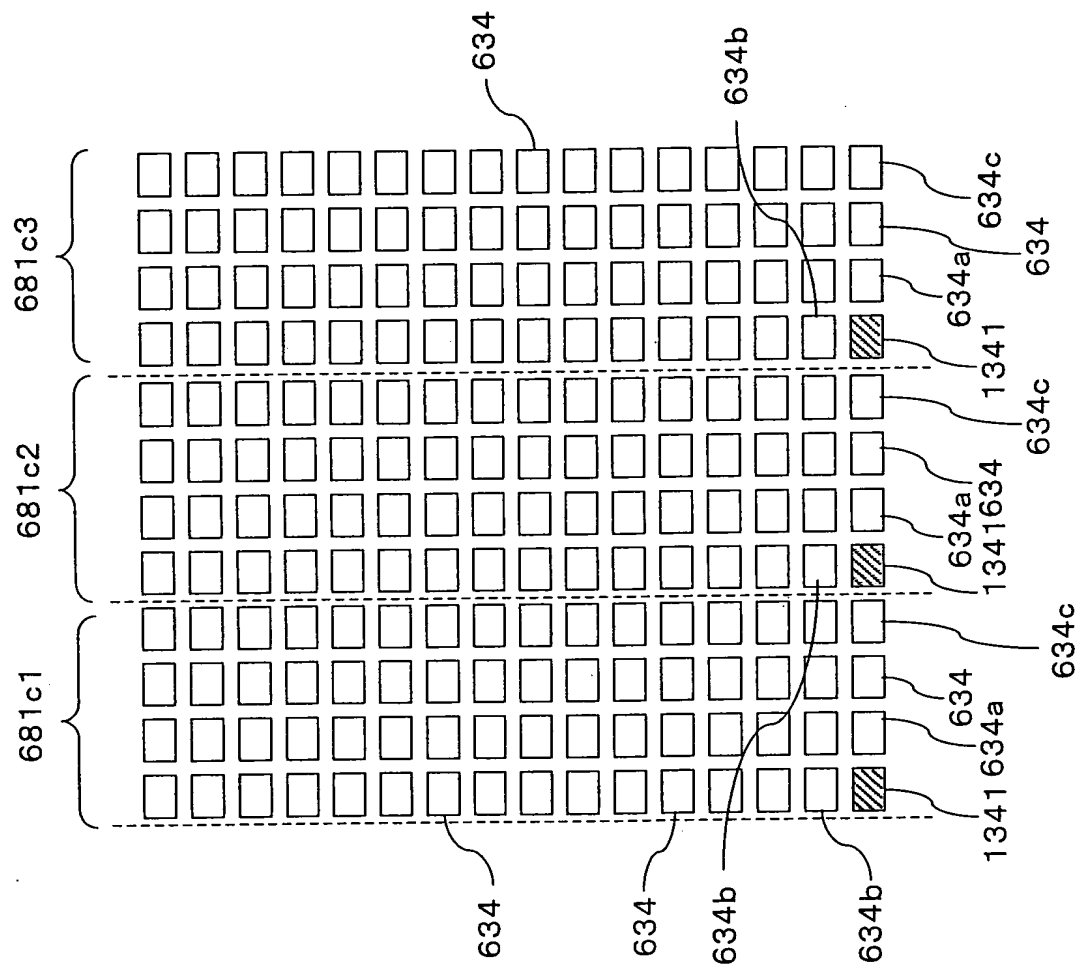
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Fig. 132



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Fig. 134



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Fig. 135 (a)

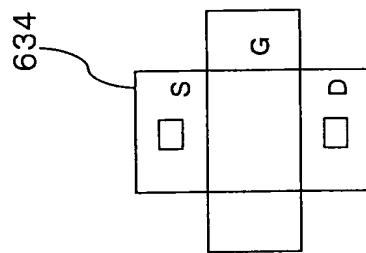


Fig. 135 (b)

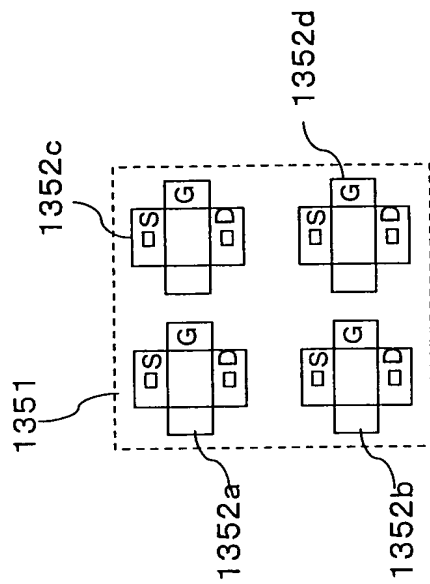


Fig. 135 (c)

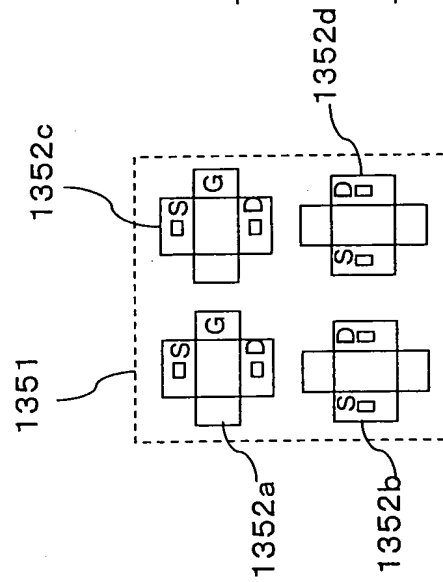
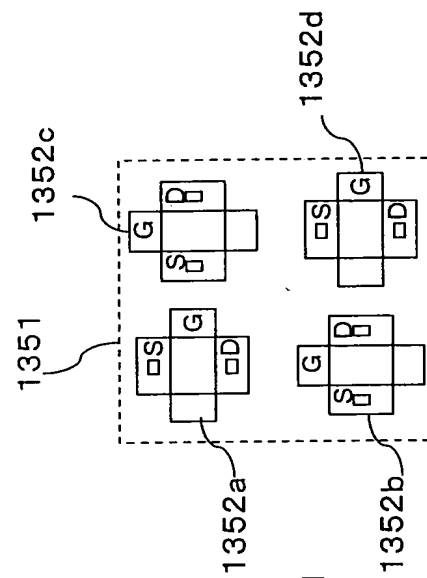
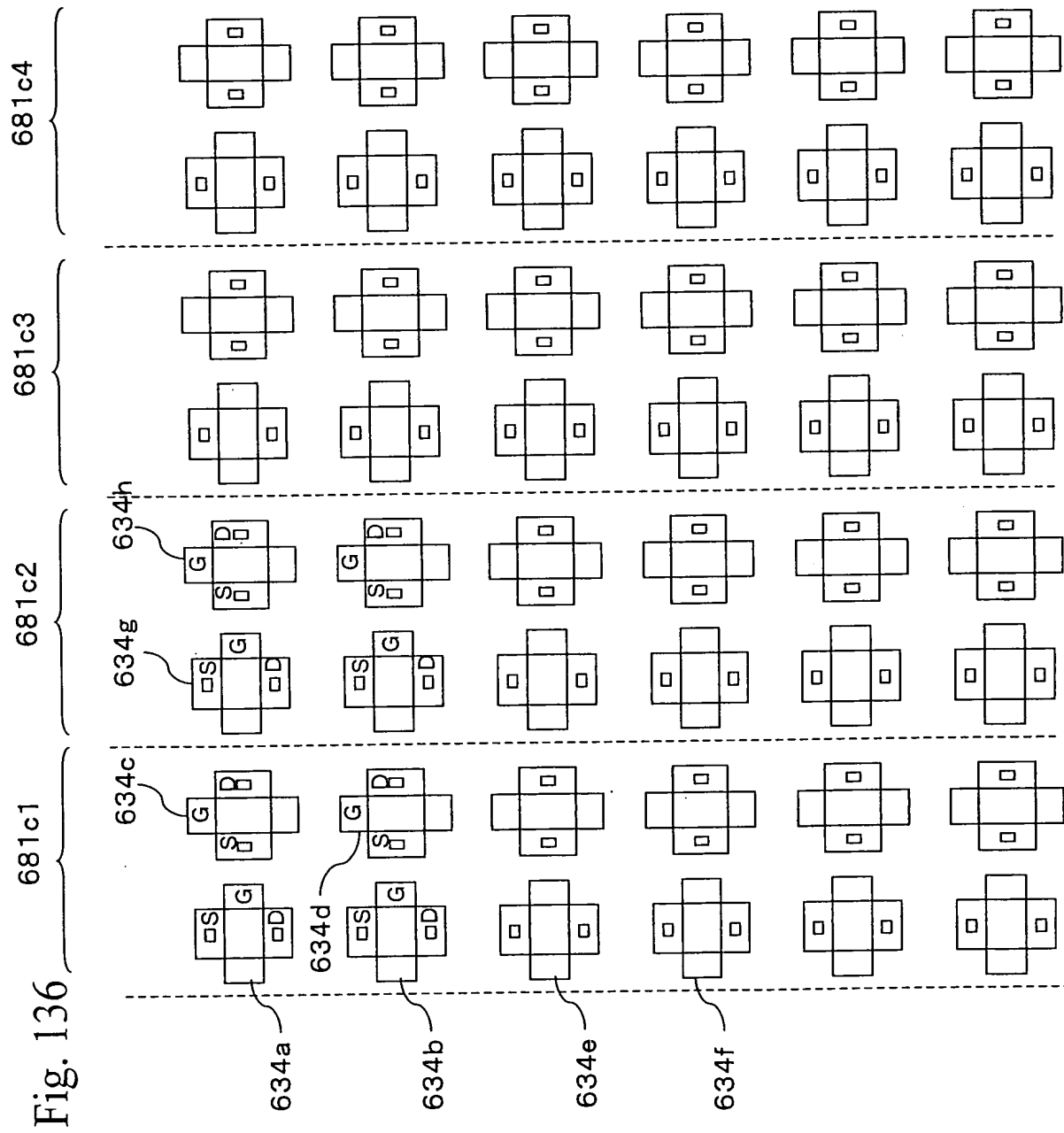


Fig. 135 (d)

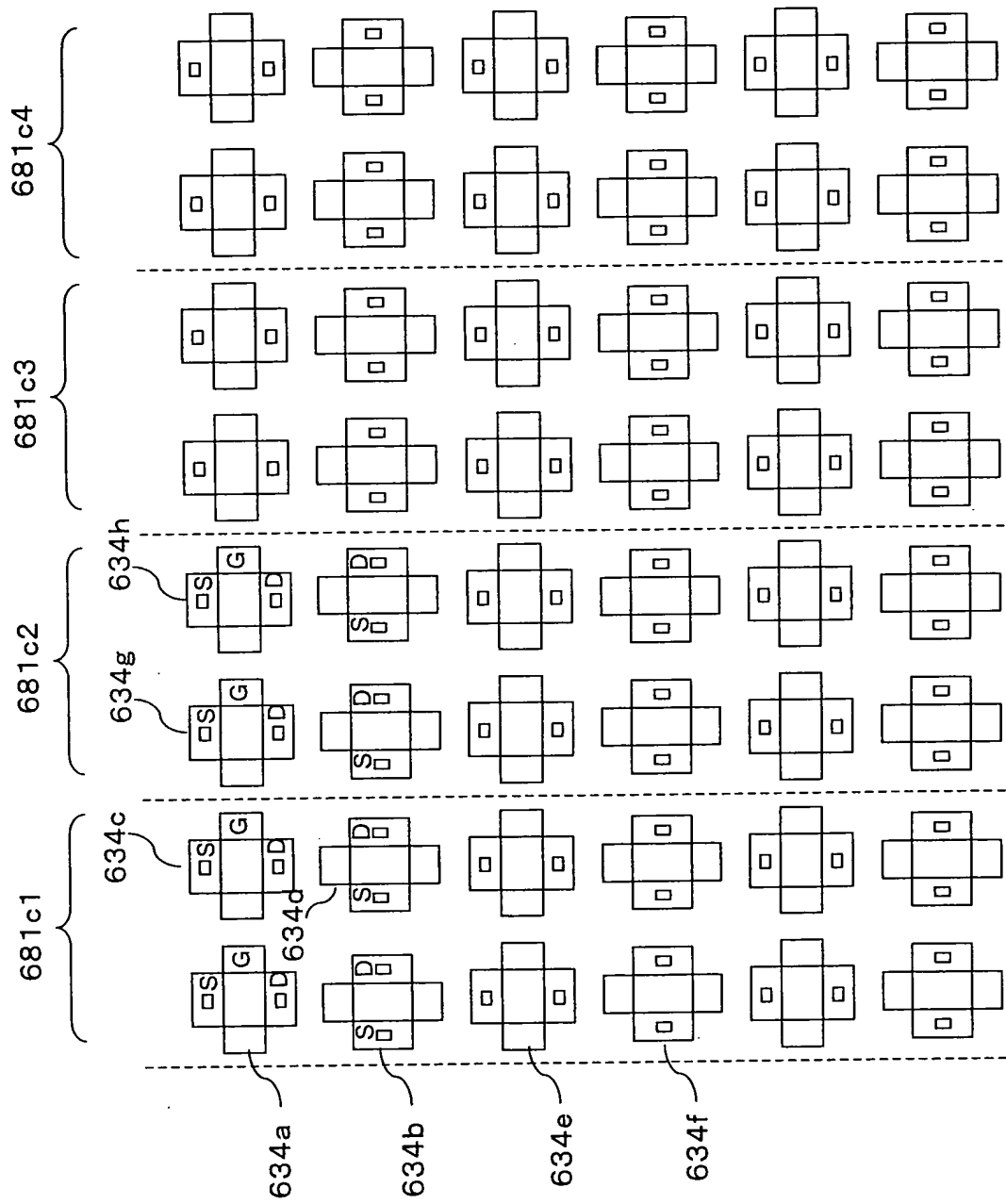


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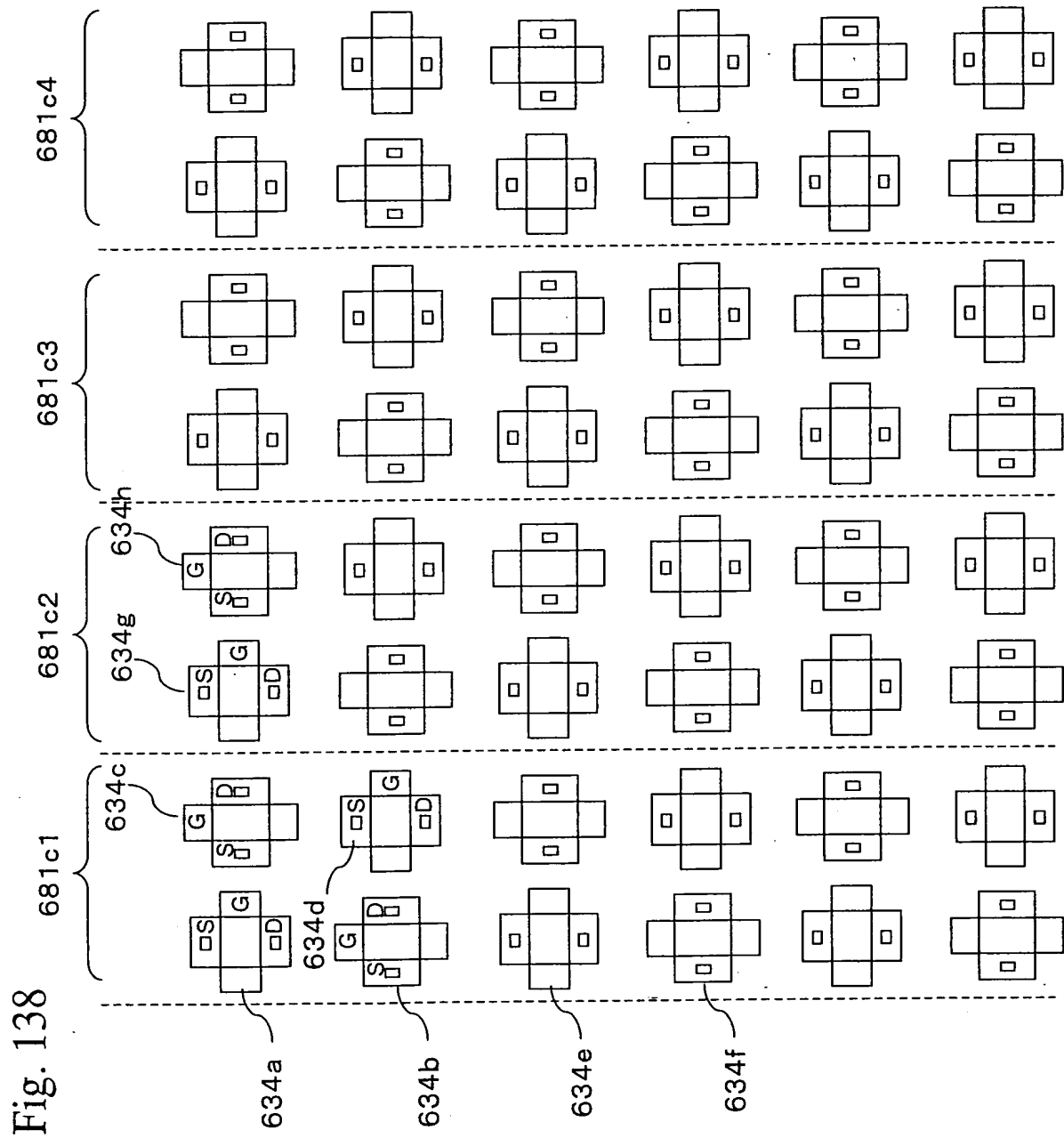


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Fig. 137



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Fig. 139 (b)

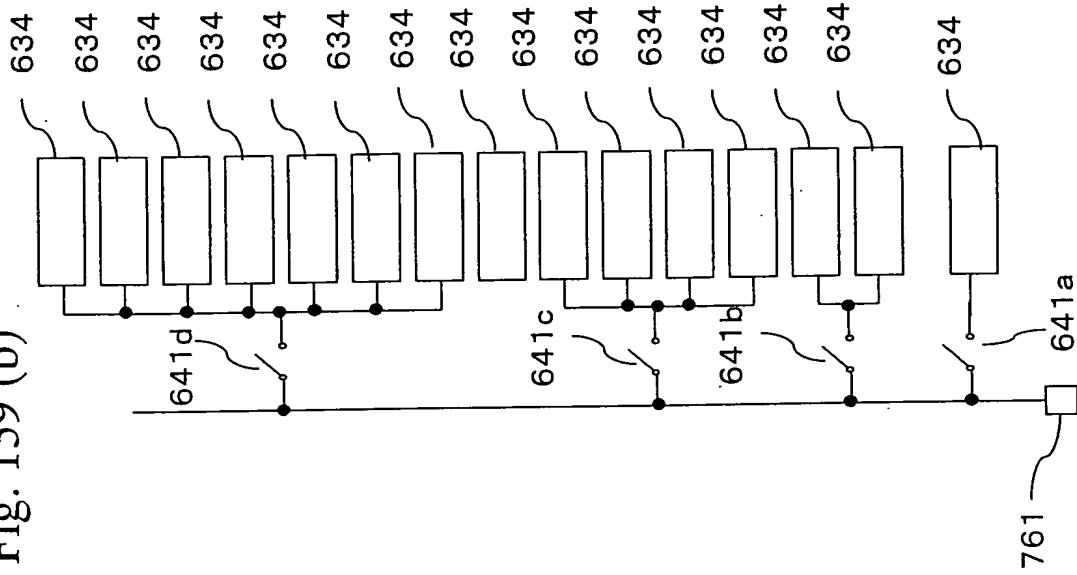
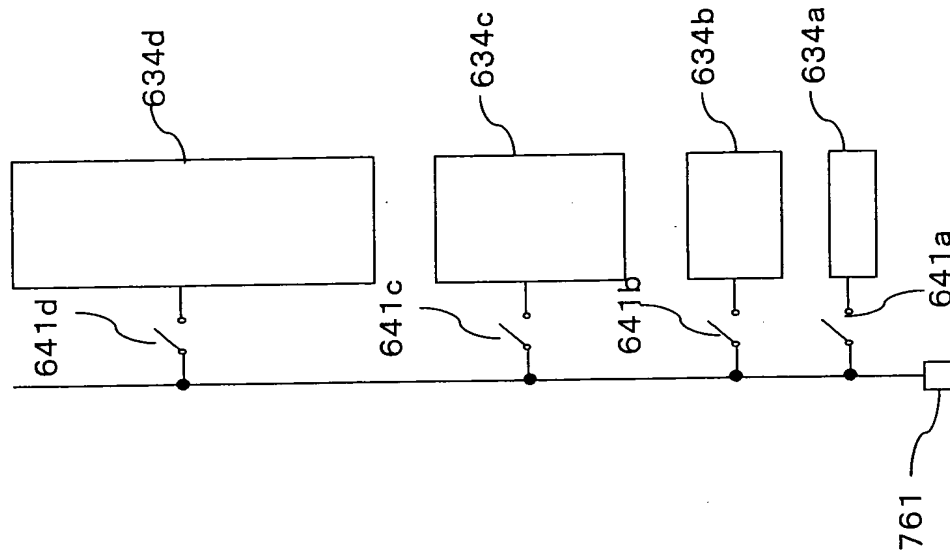
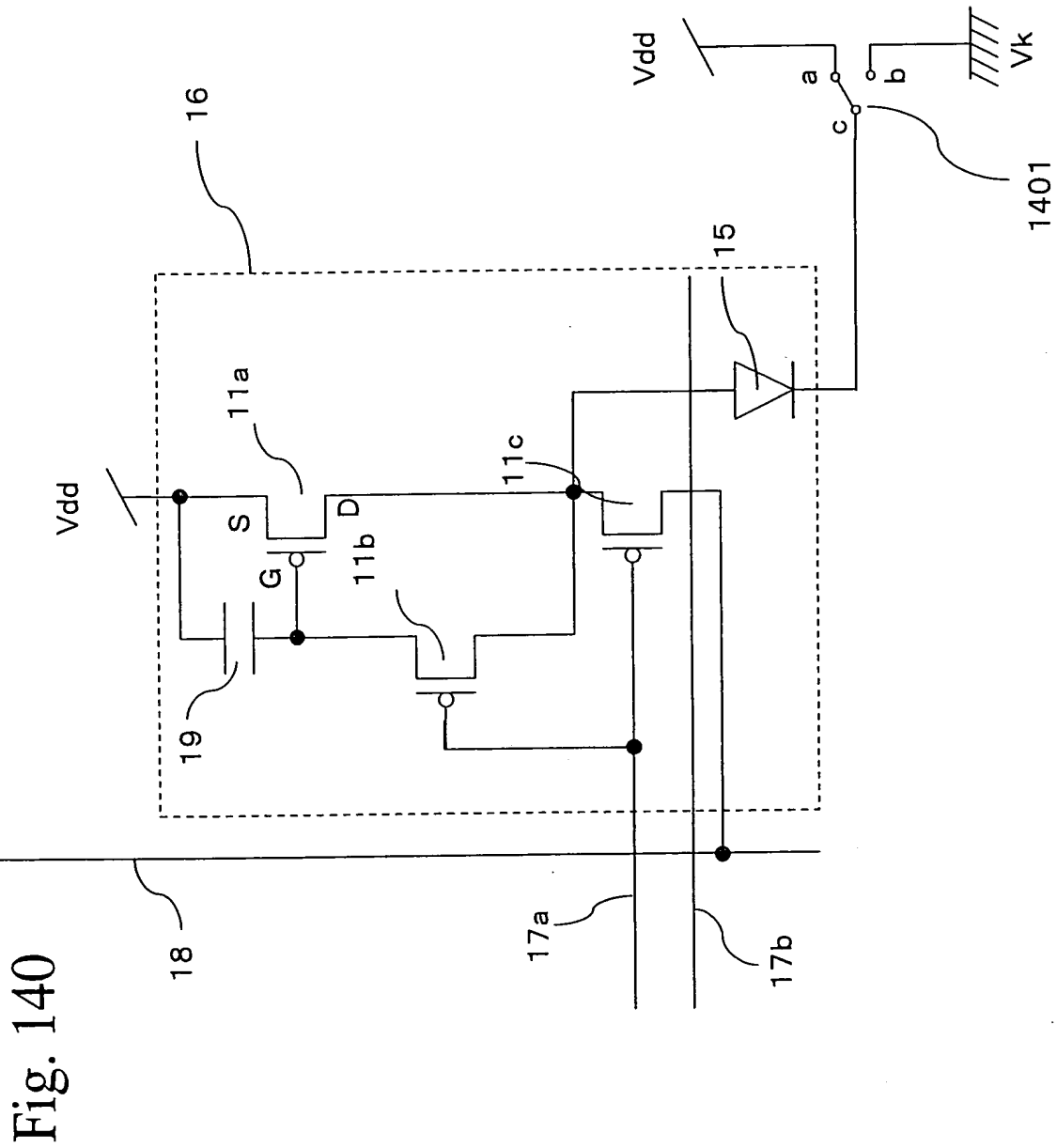


Fig. 139 (a)

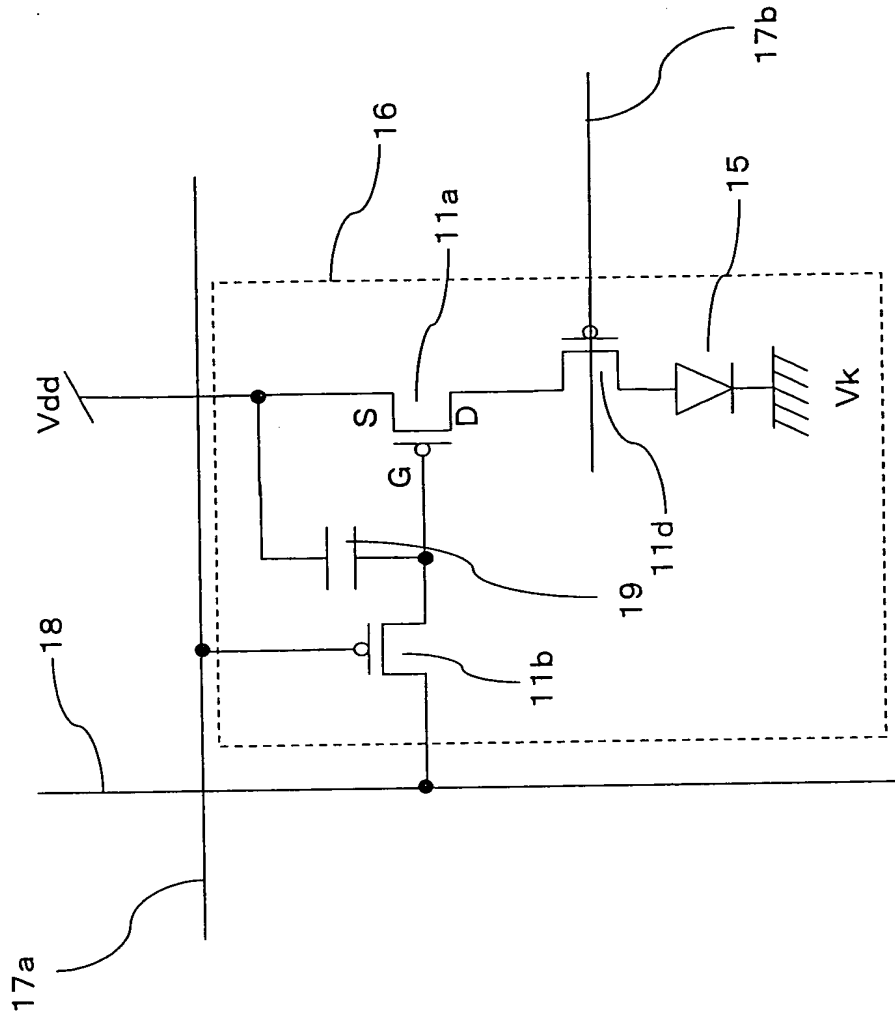


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Fig. 141



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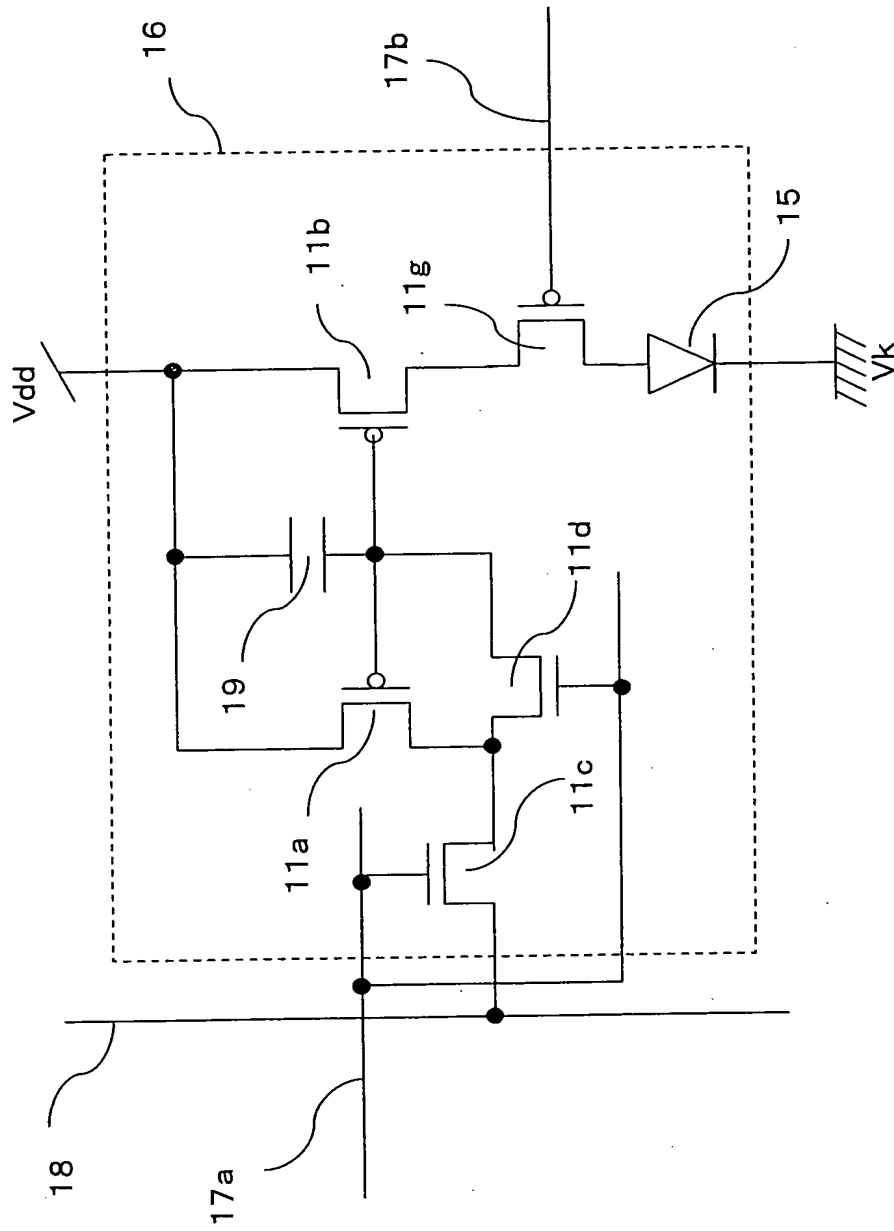
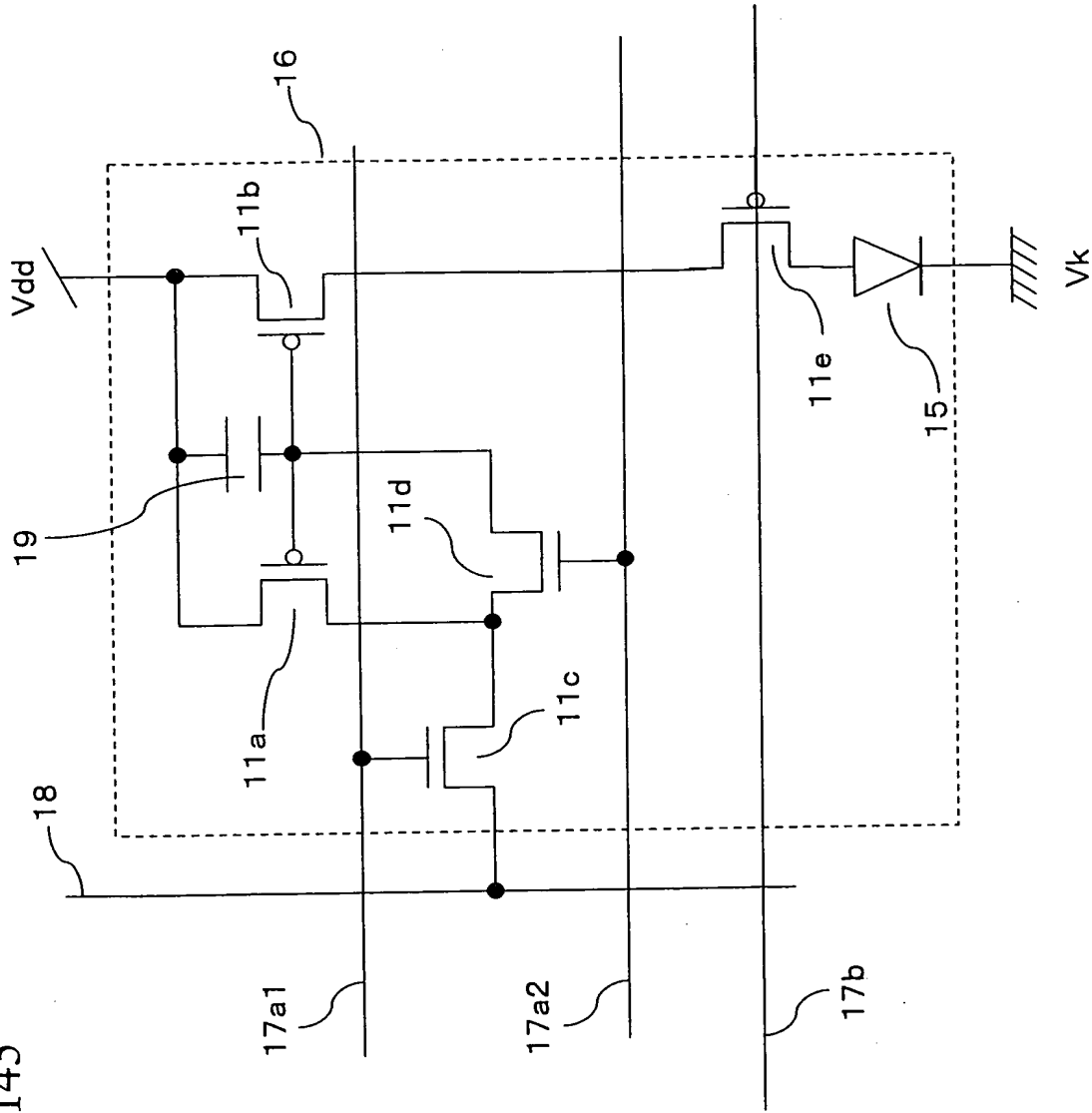


Fig. 142

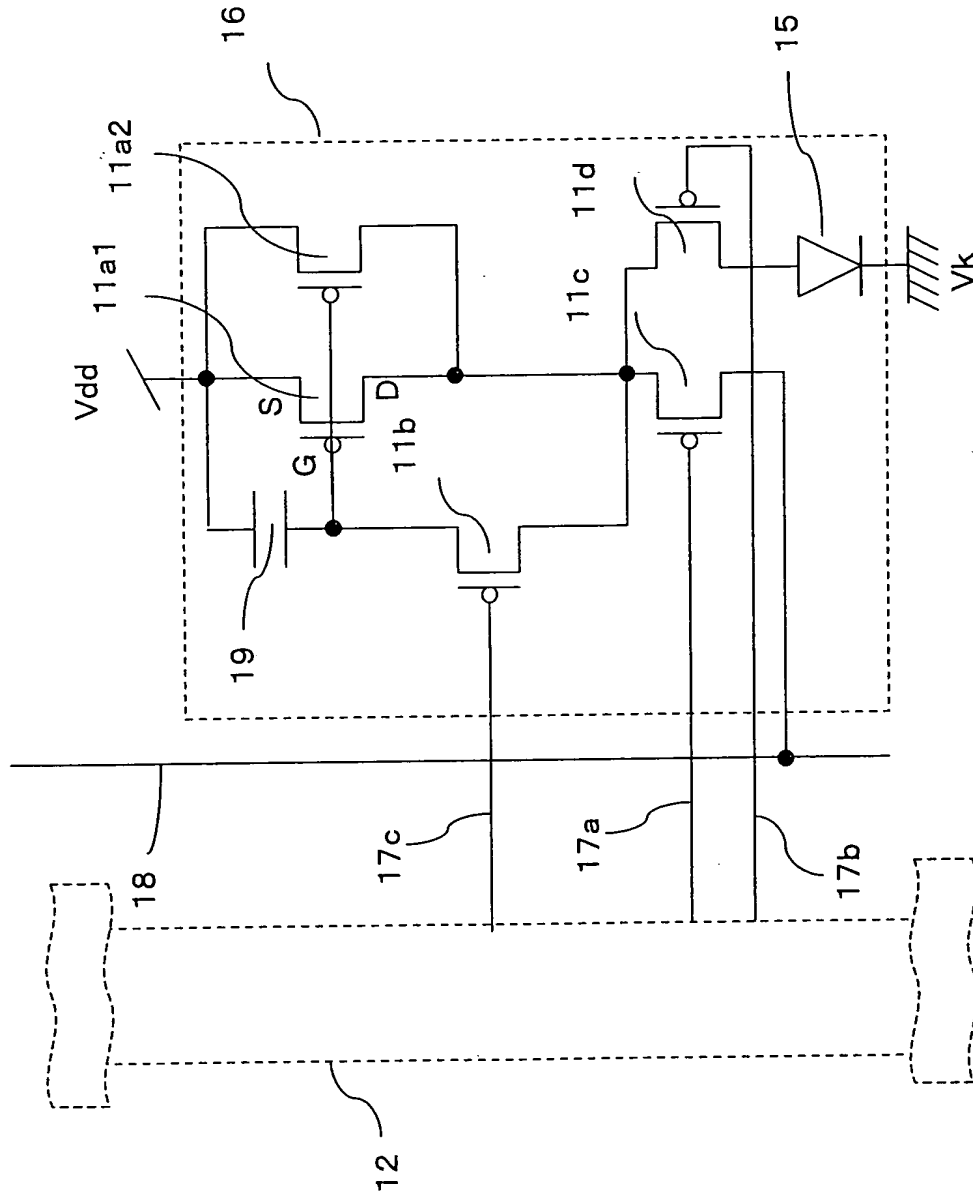
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Fig. 143



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Fig. 144



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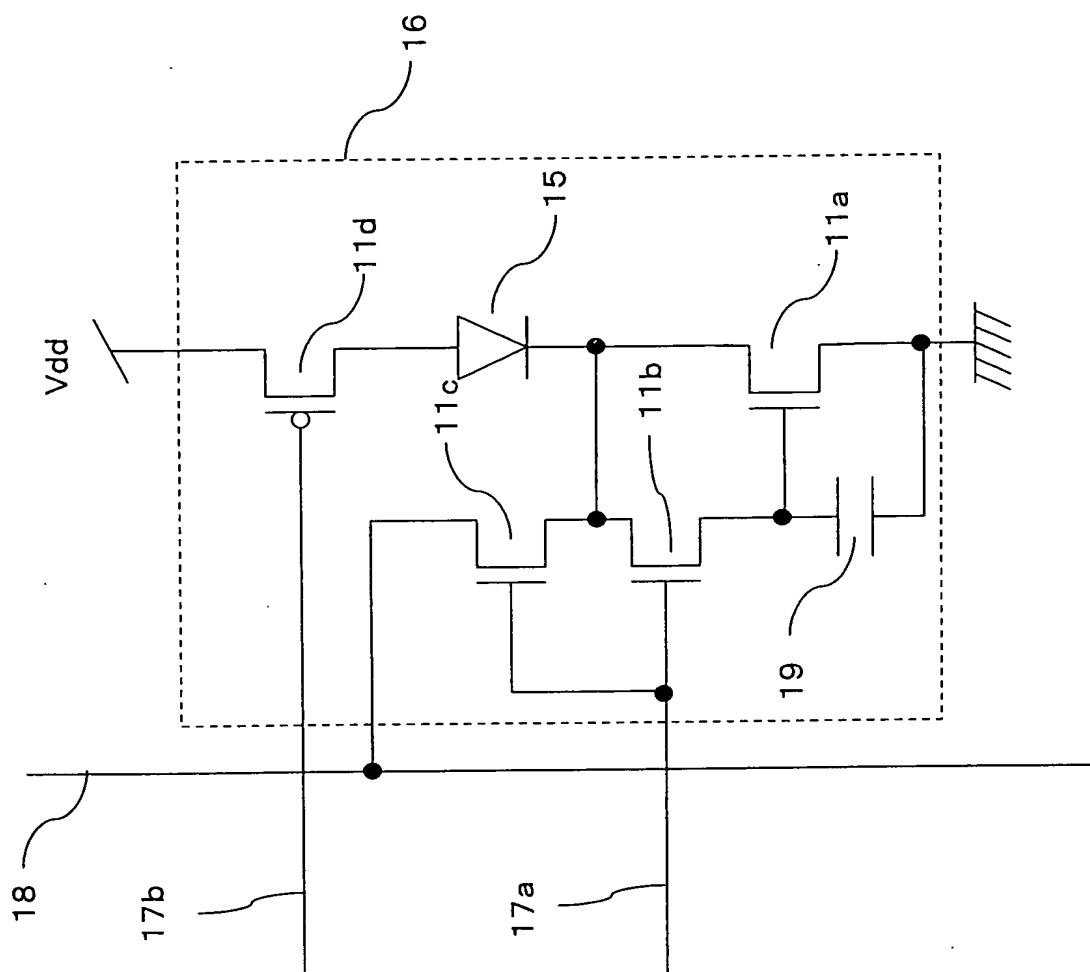
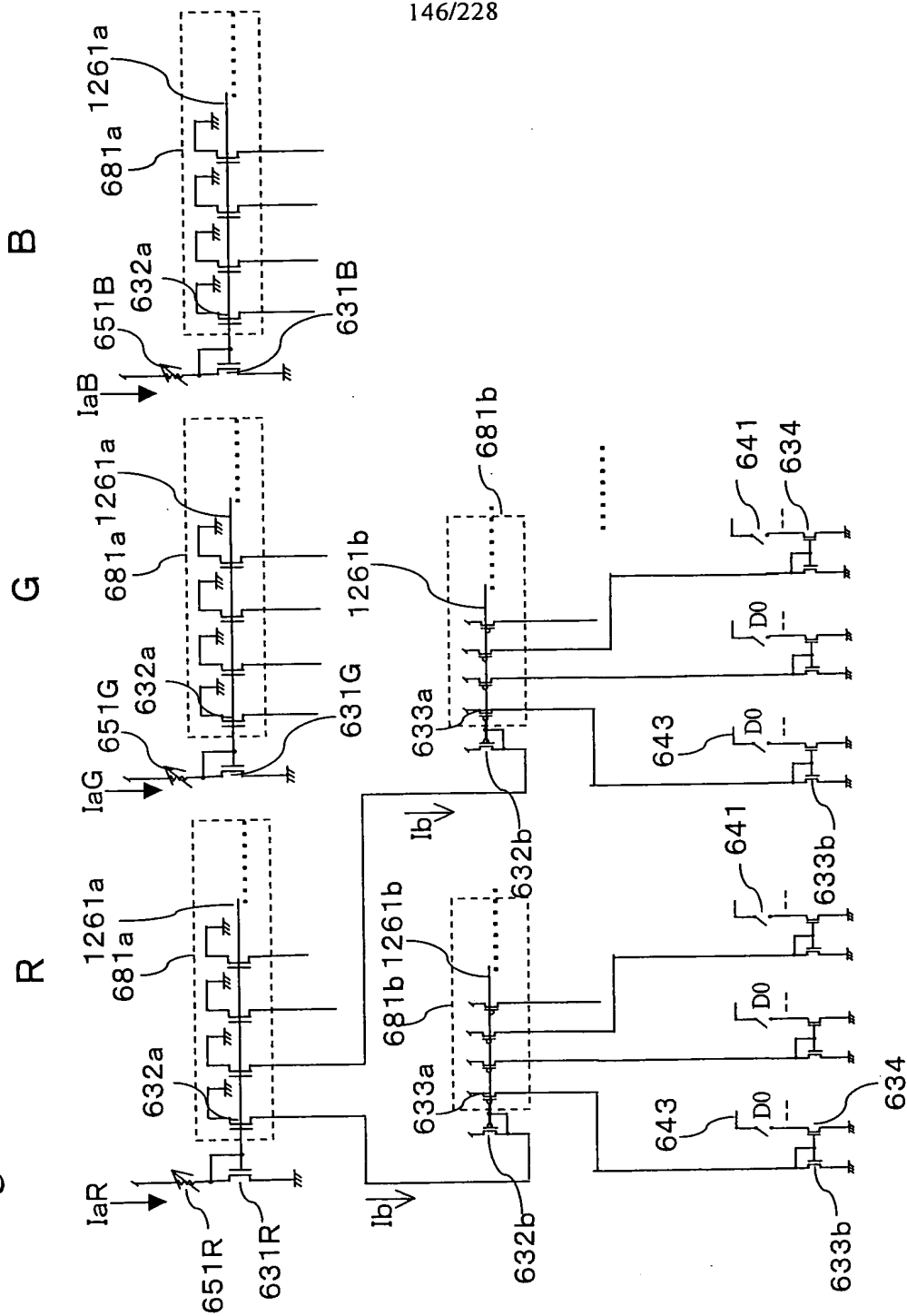


Fig. 145

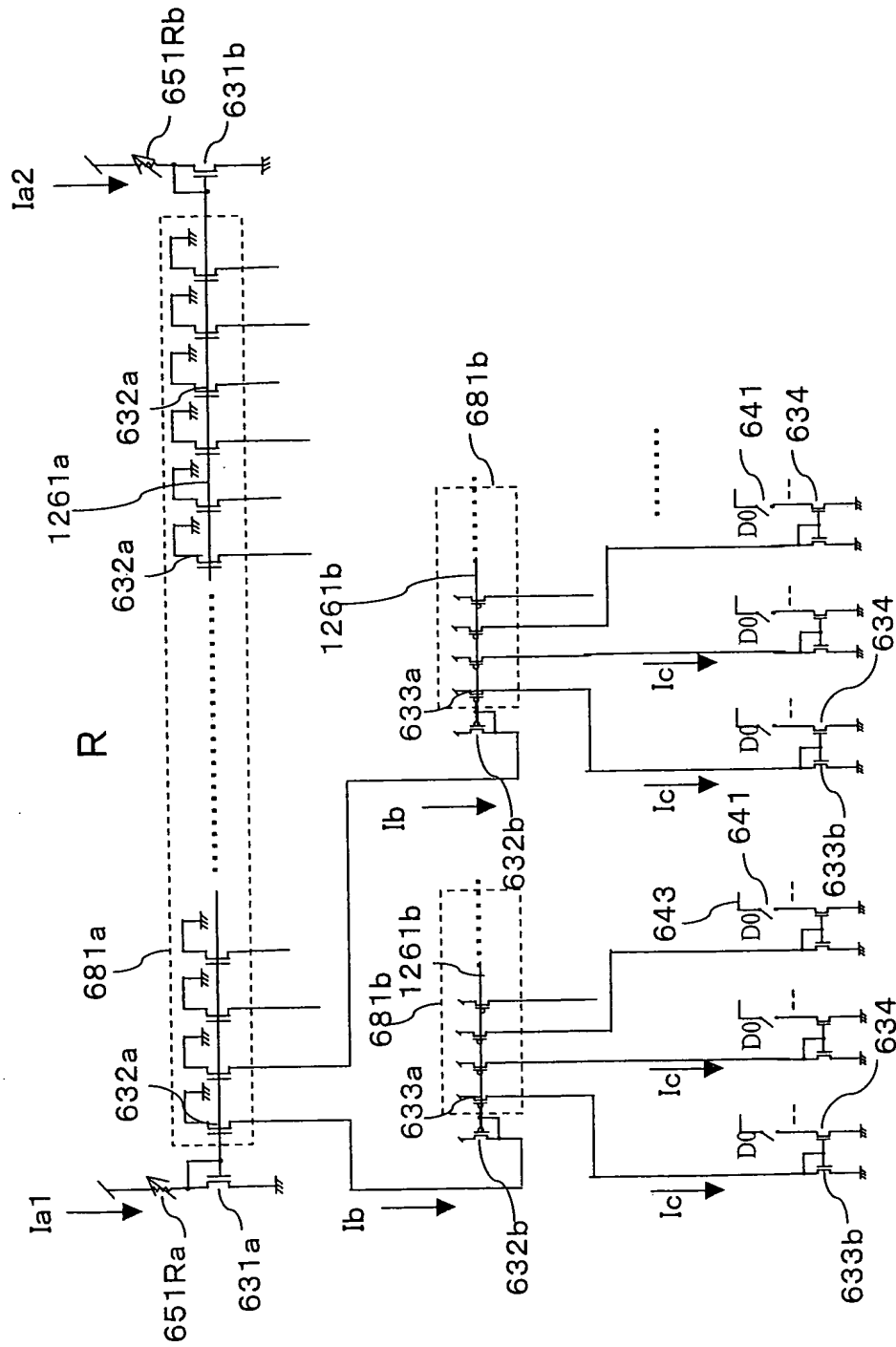
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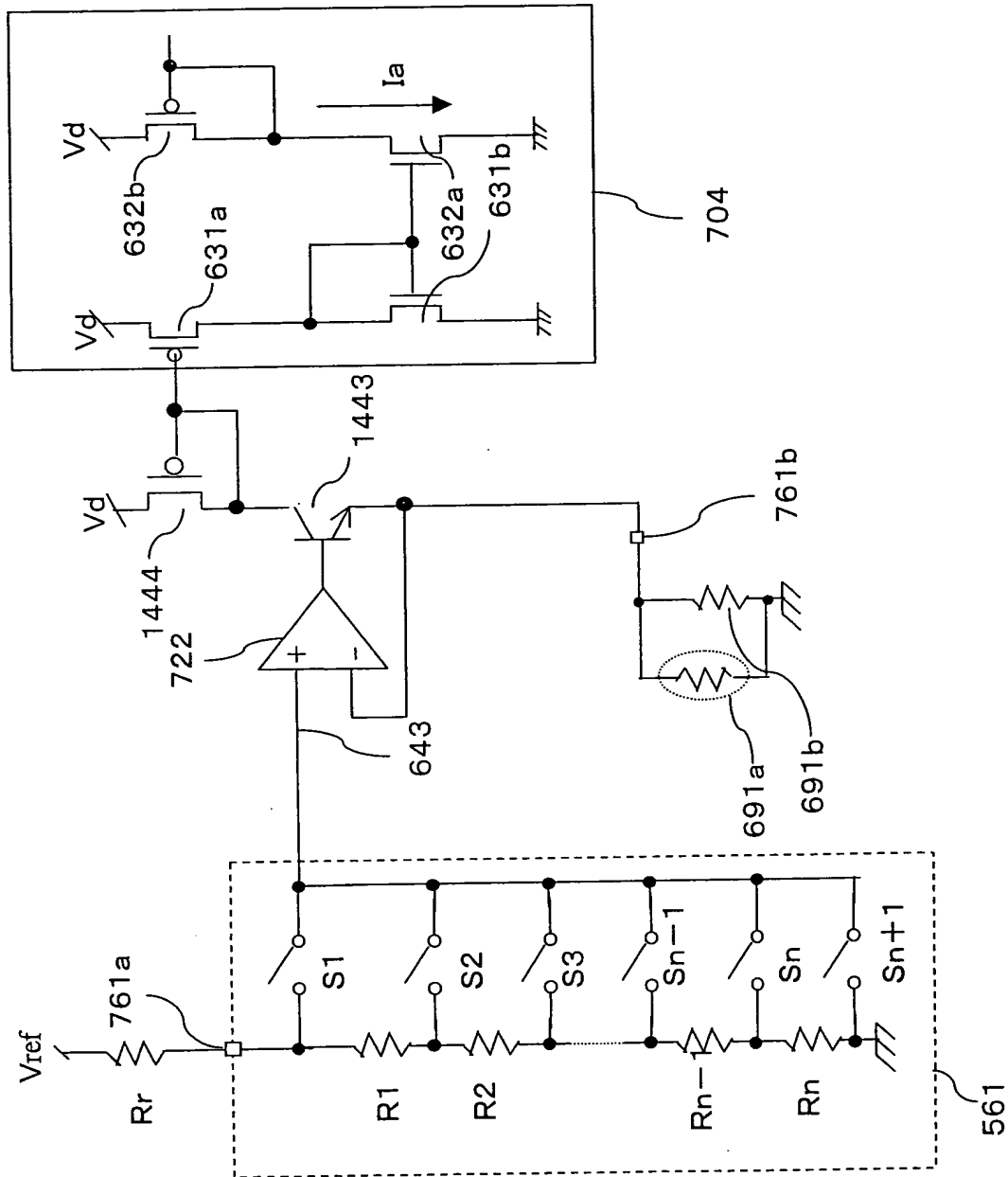
Fig. 146

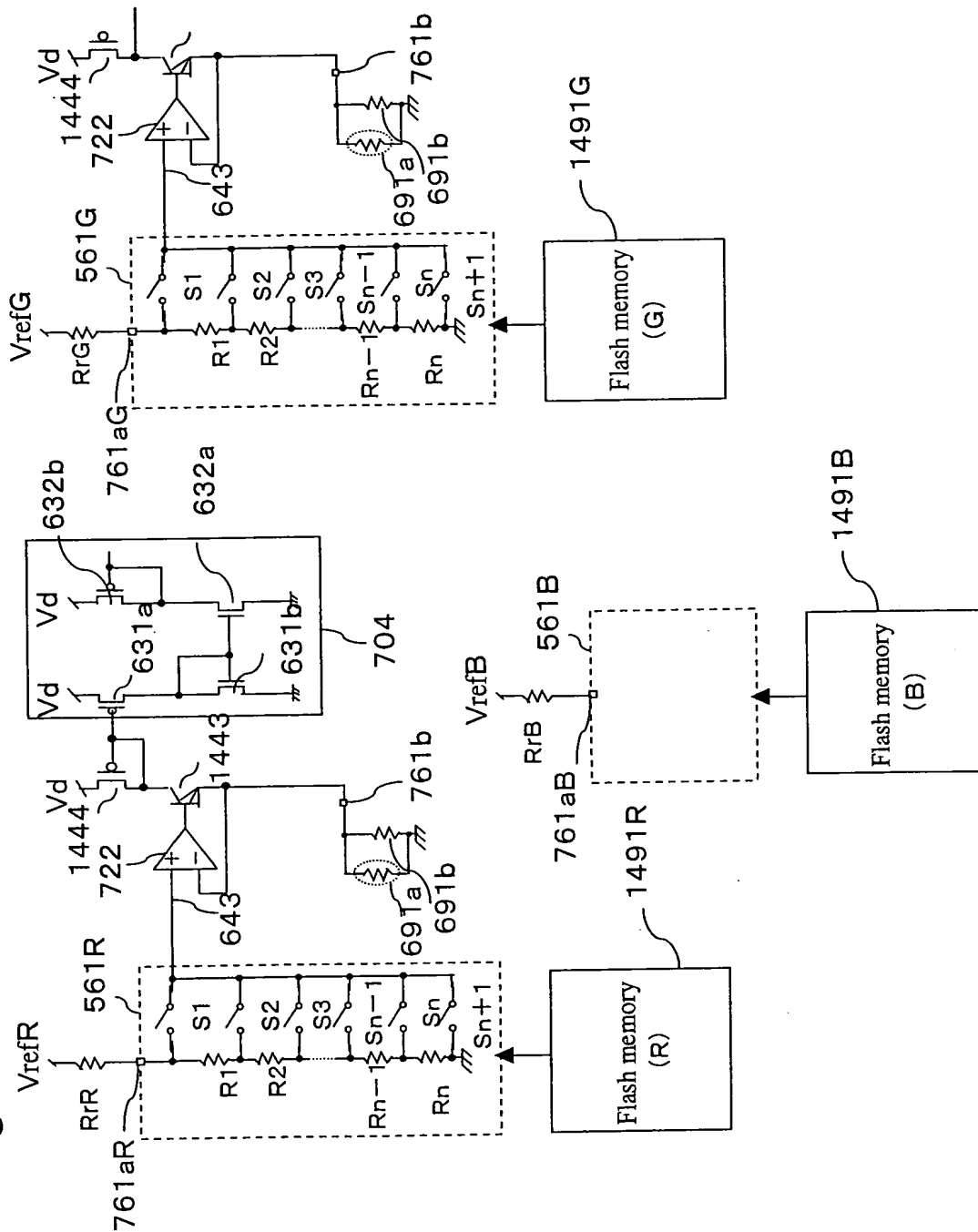


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Fig. 147

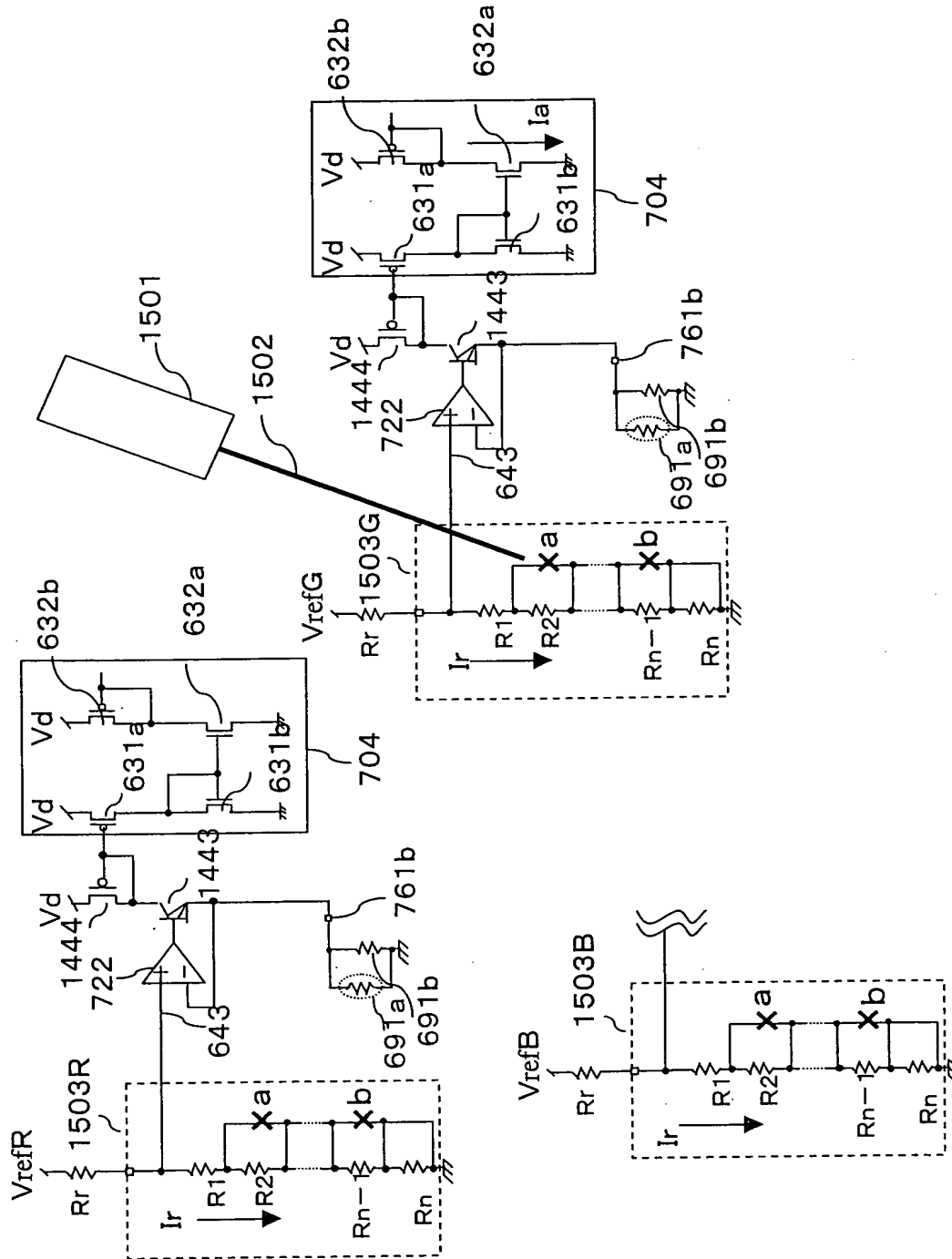






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Fig. 150



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Fig. 151

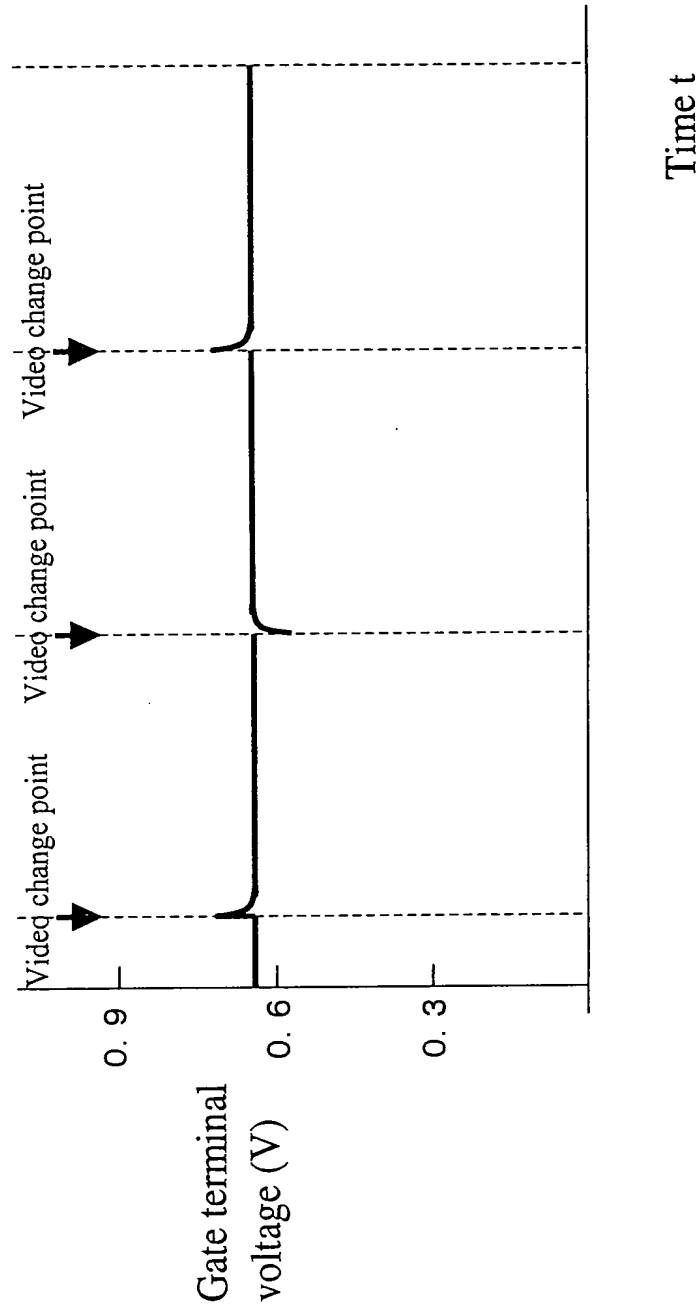
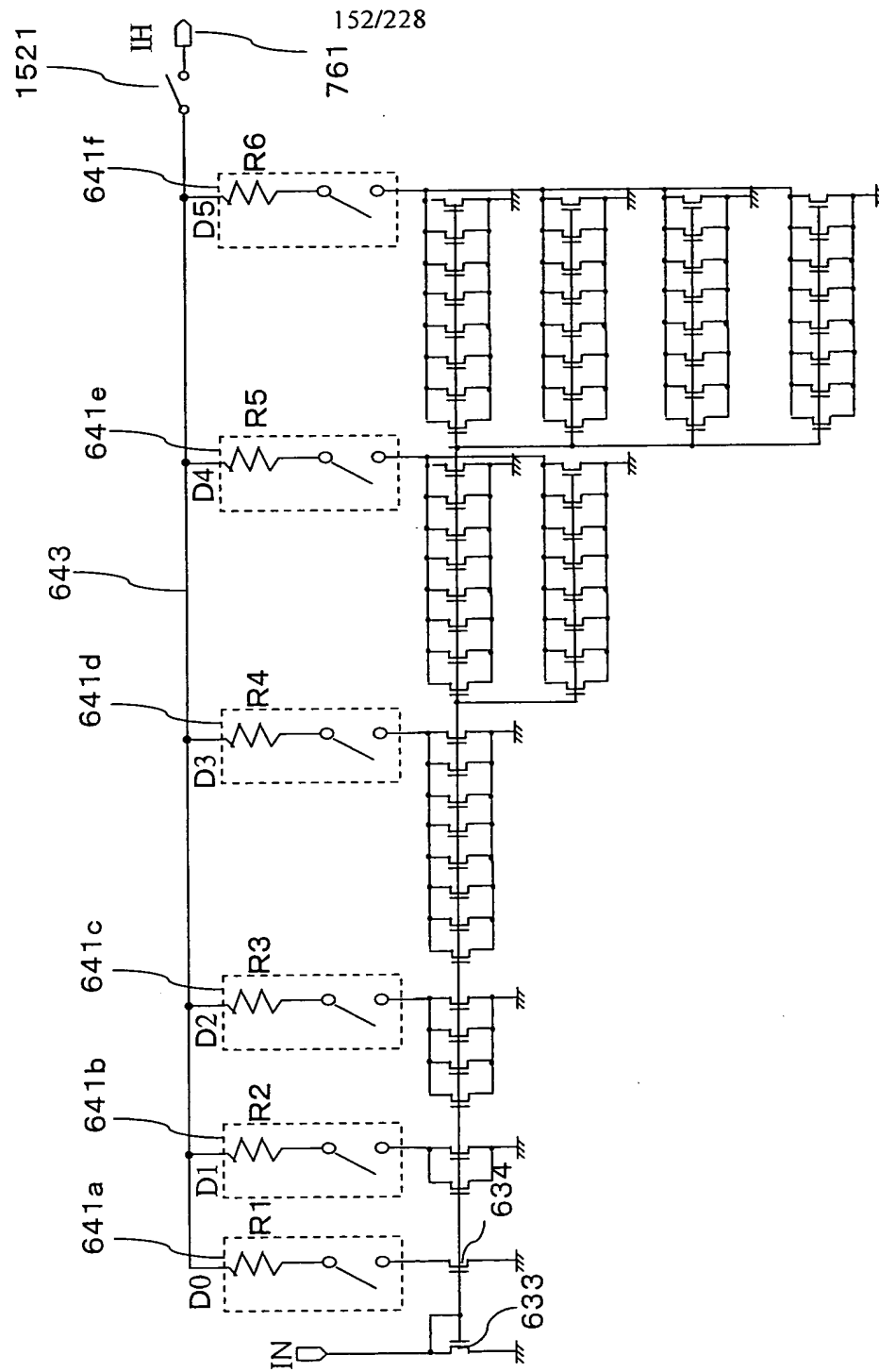


Fig. 152



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Fig. 153

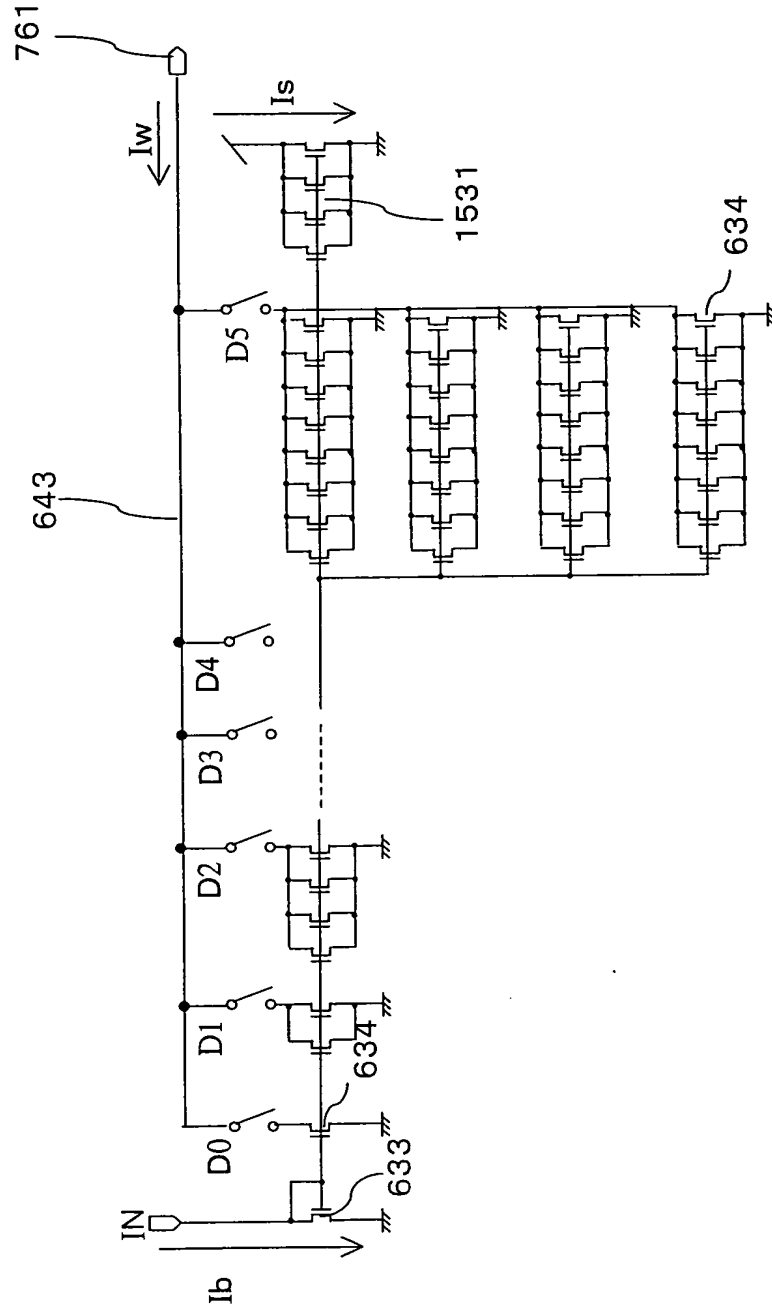


Fig. 154

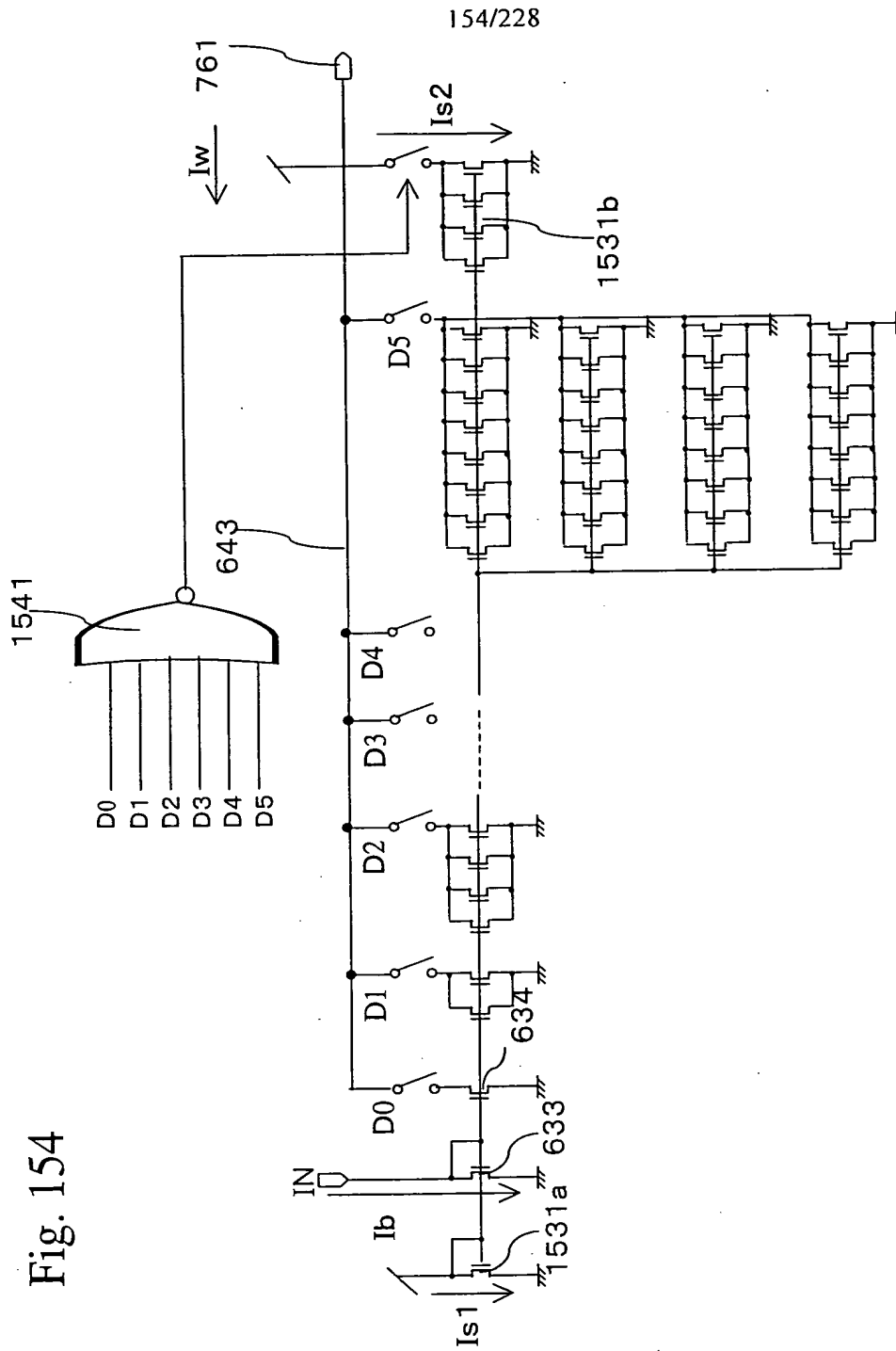
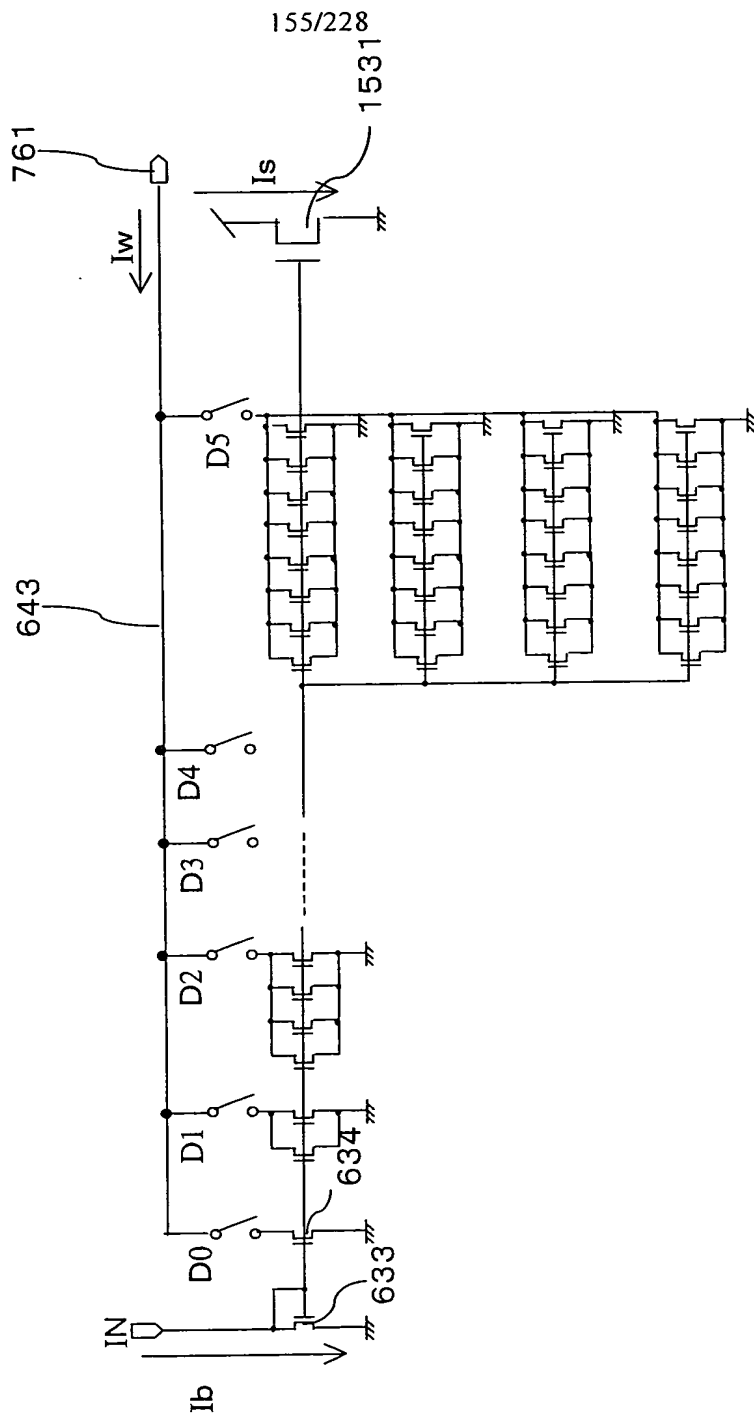
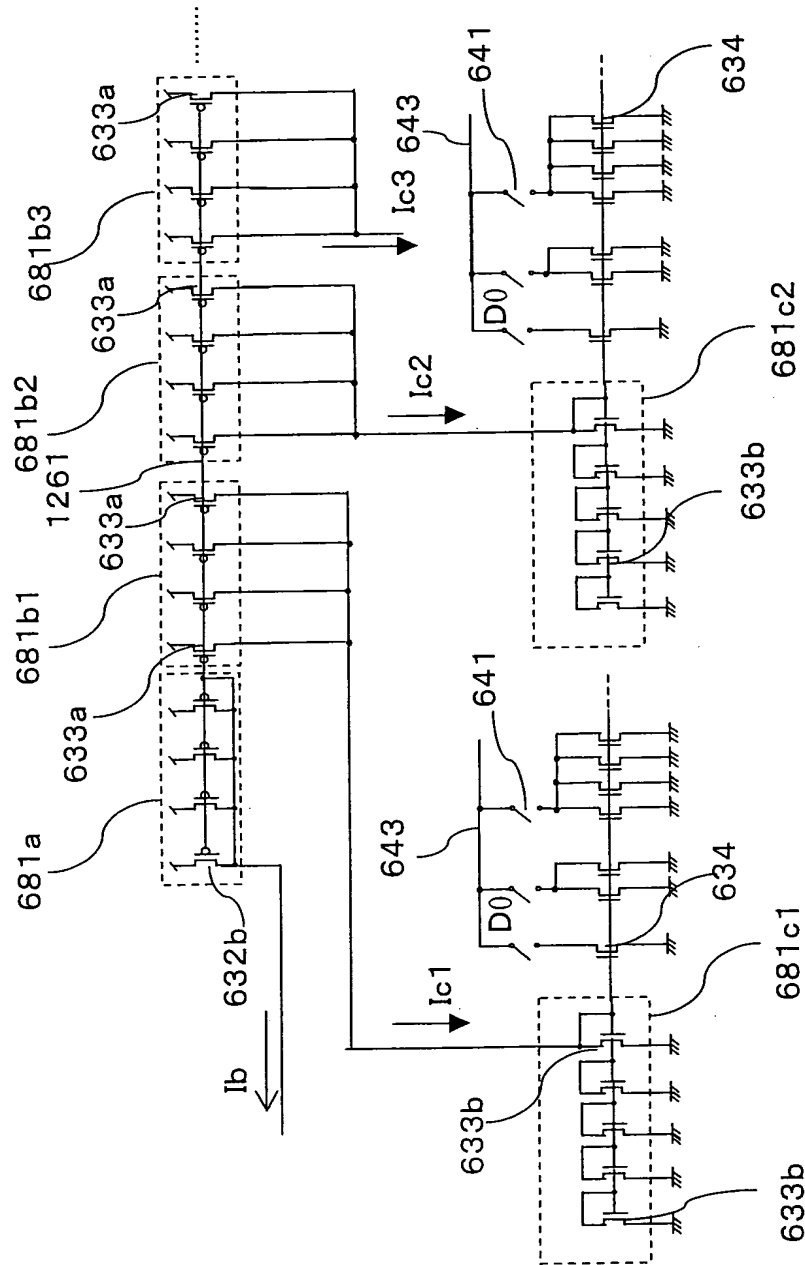


Fig. 155



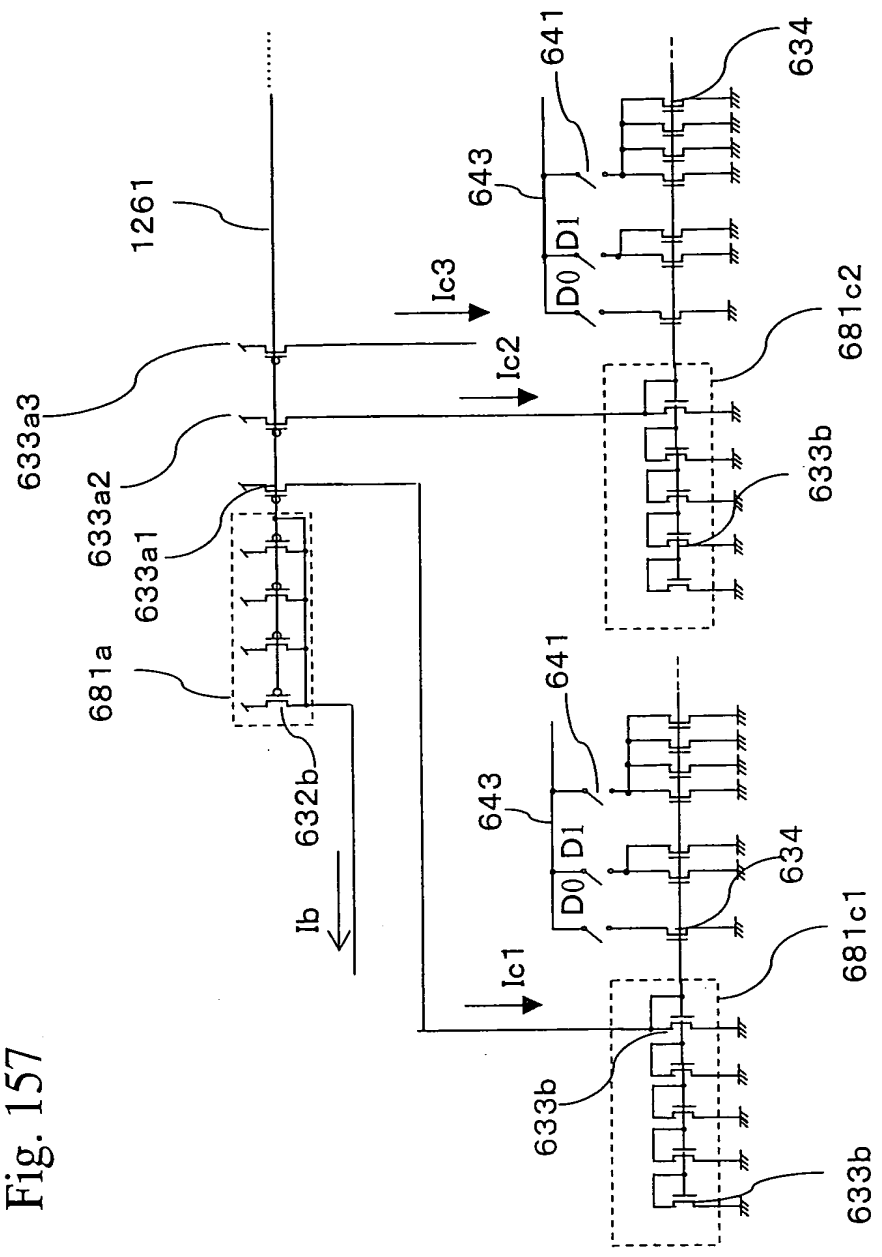
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Fig. 156



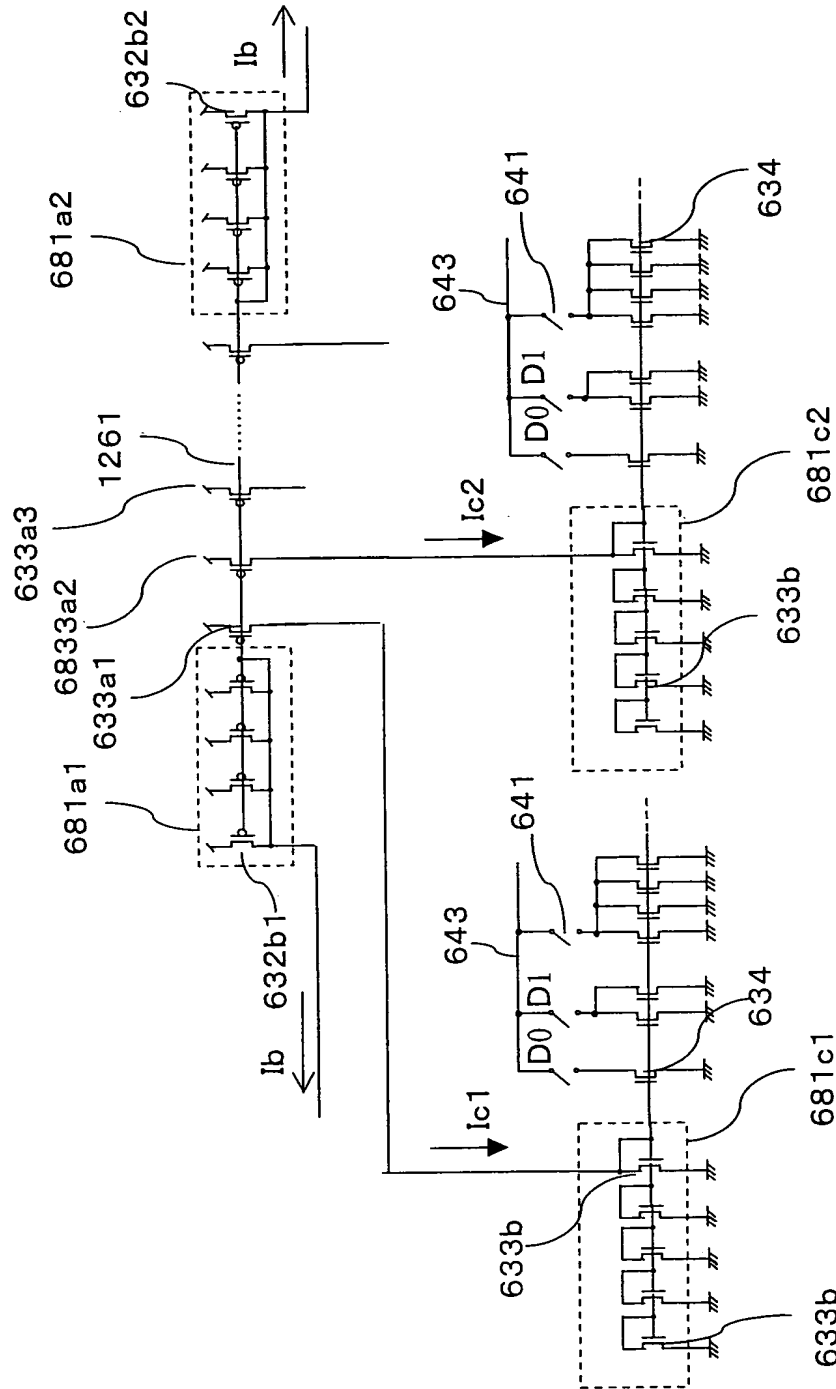
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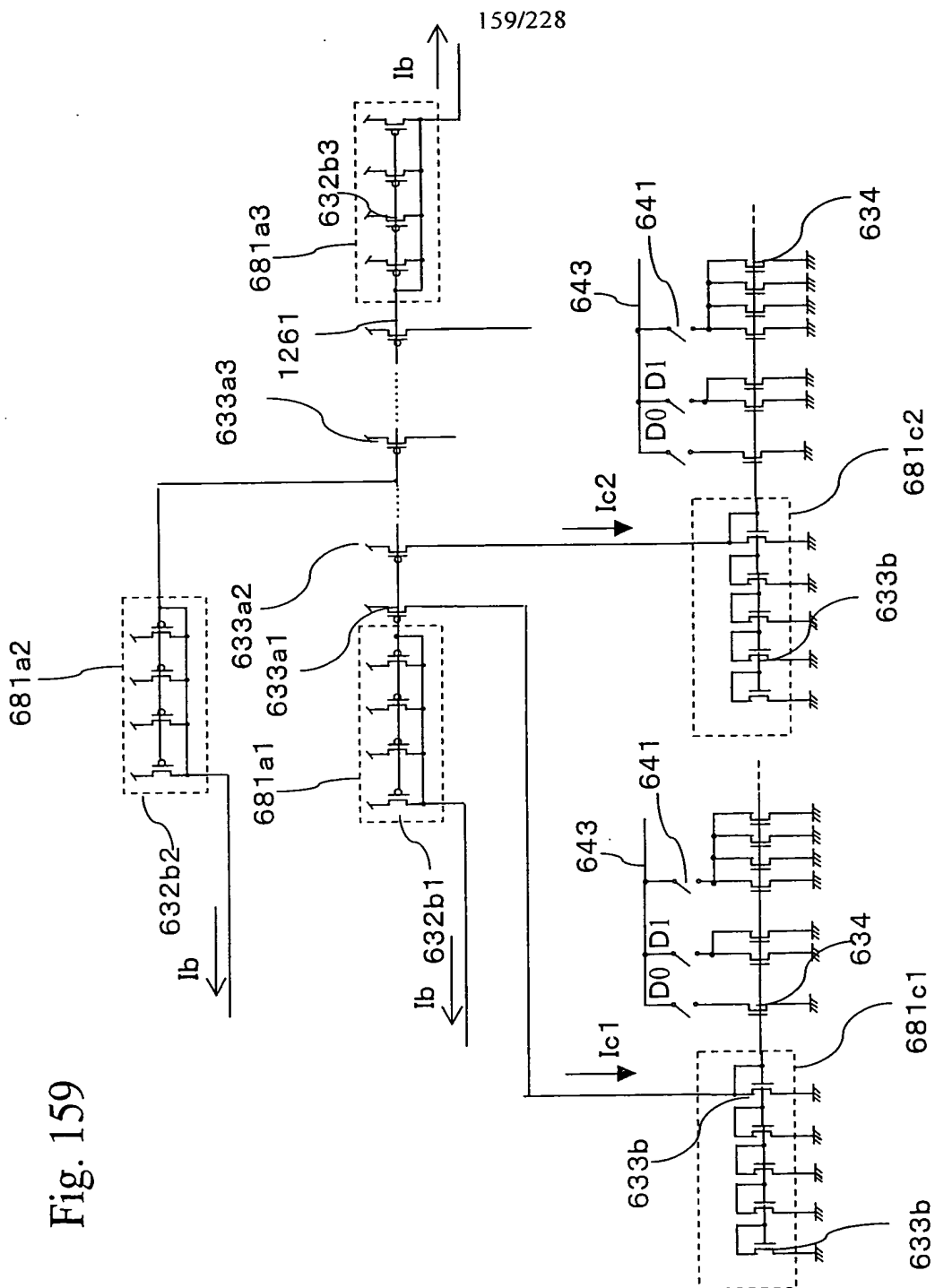
Fig. 157



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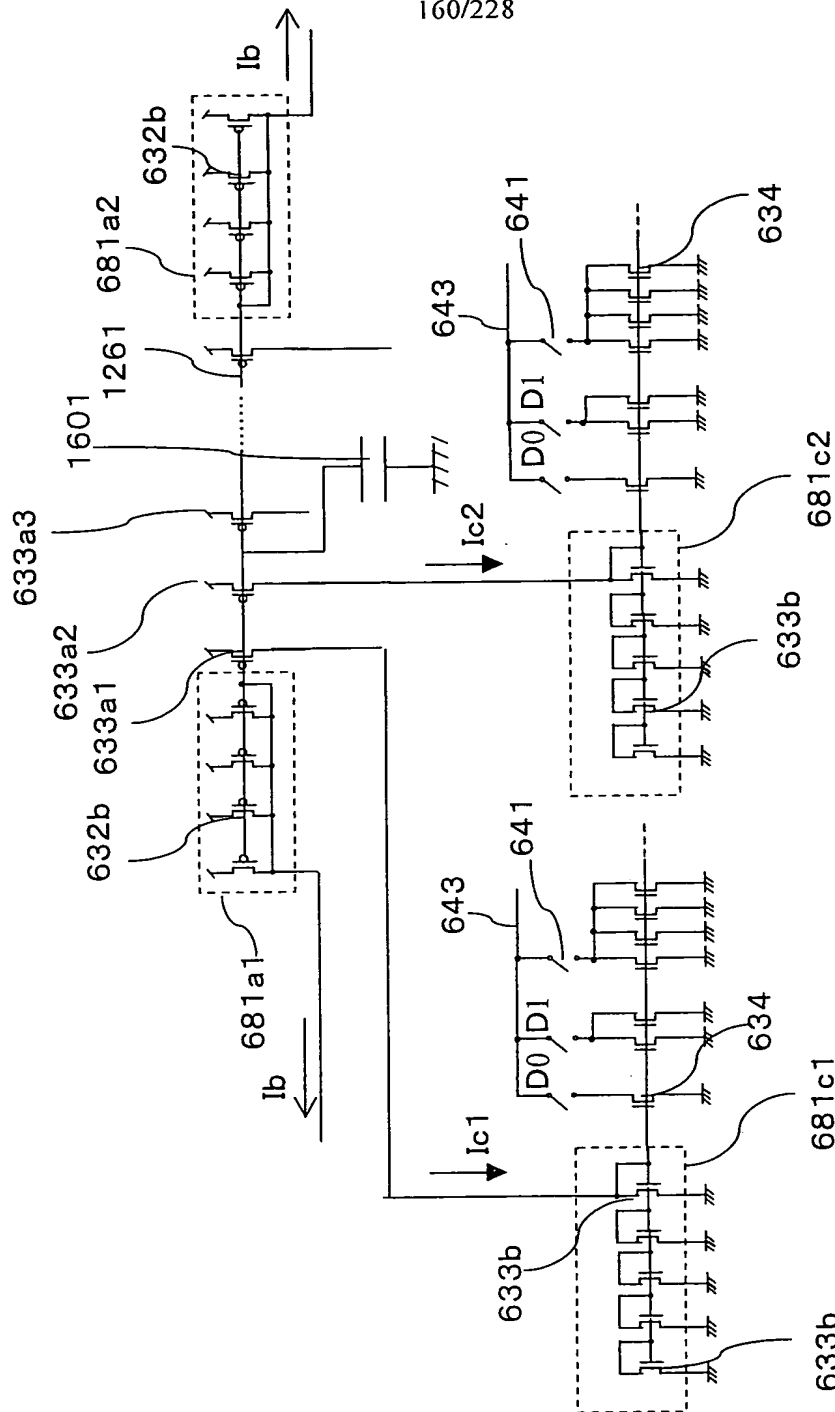
Fig. 158





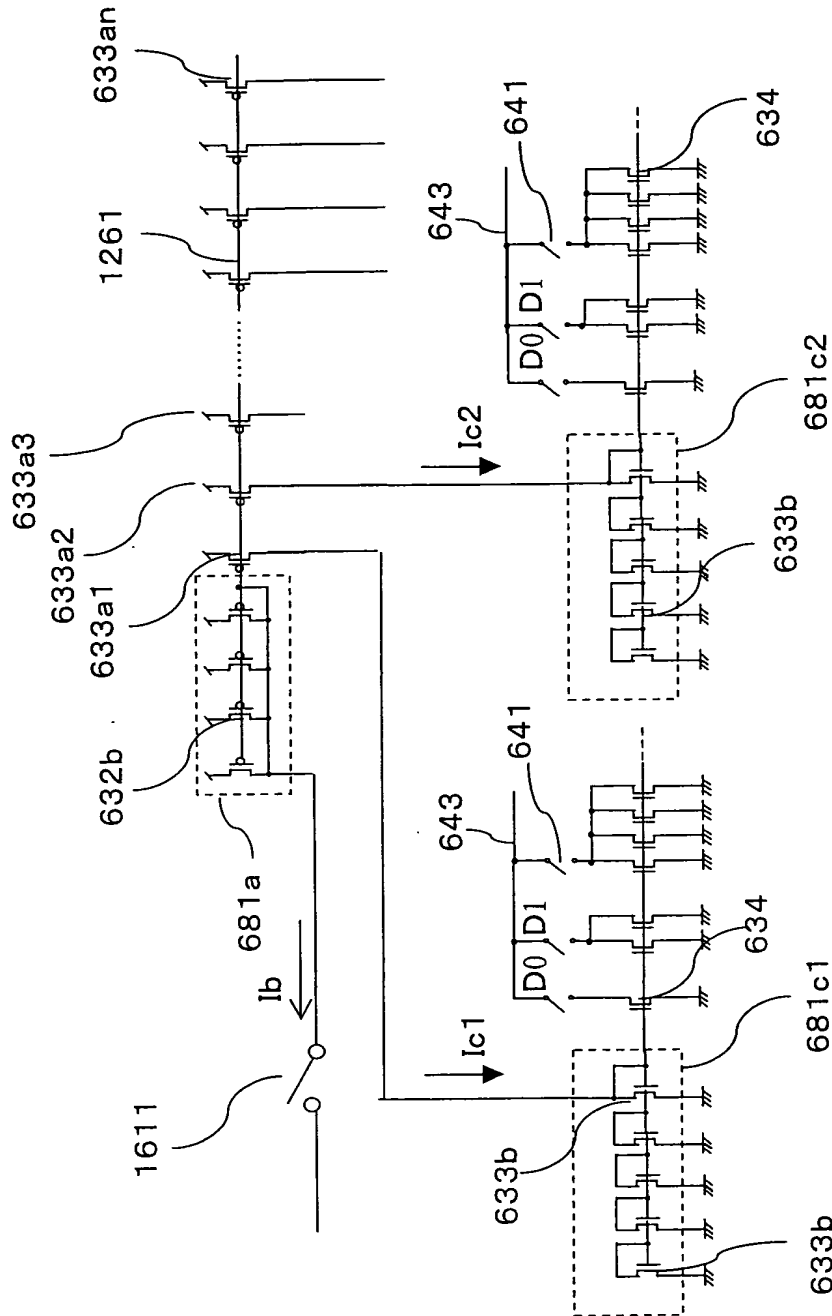
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Fig. 160



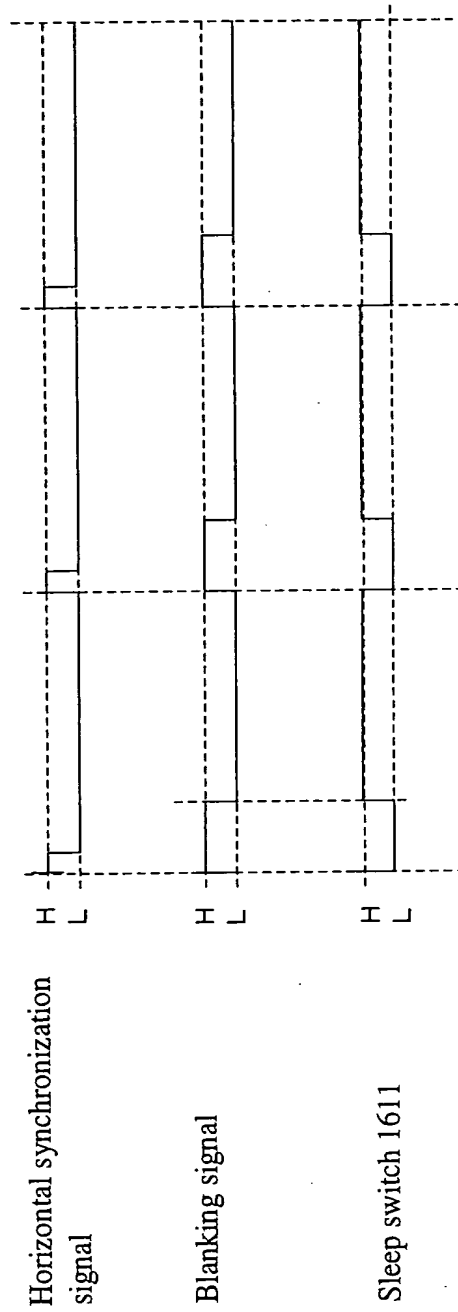
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Fig. 161



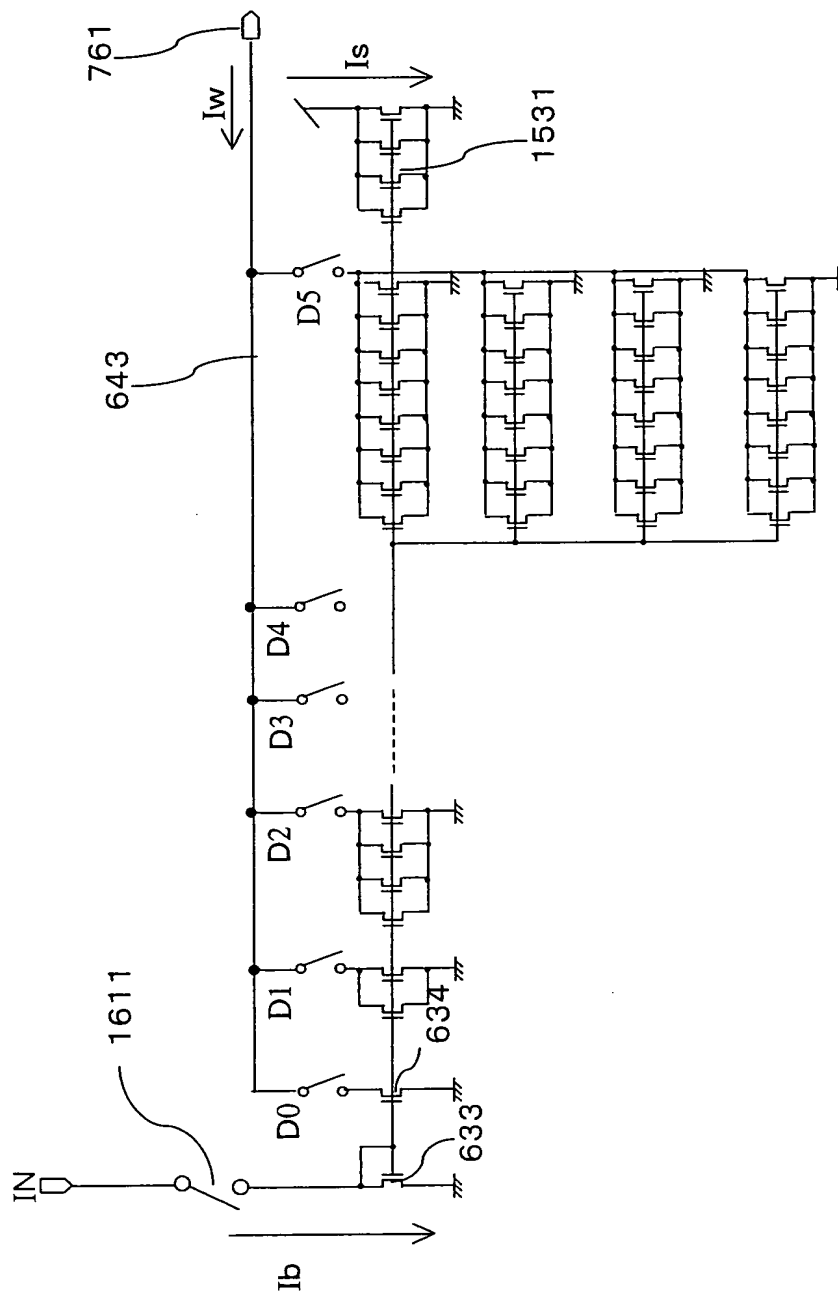
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Fig. 162



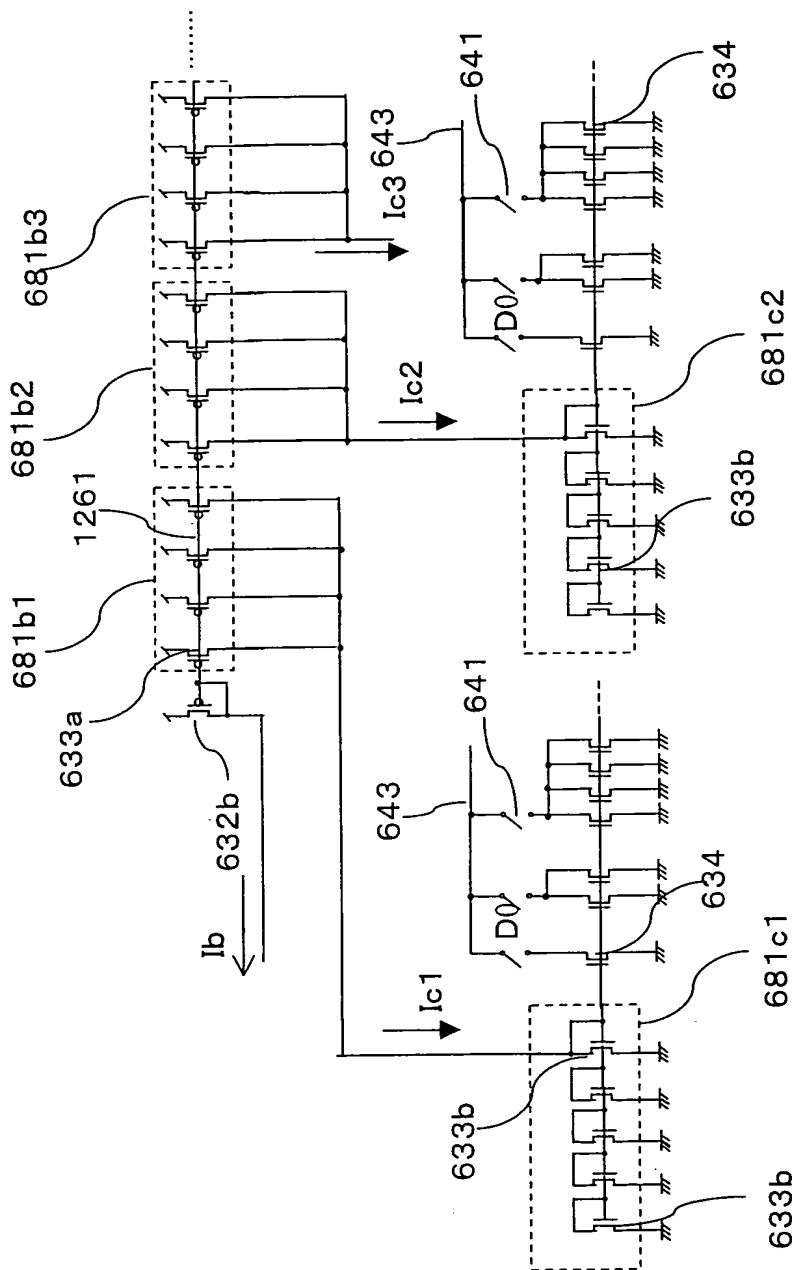
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Fig. 163



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Fig. 164



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Fig. 165

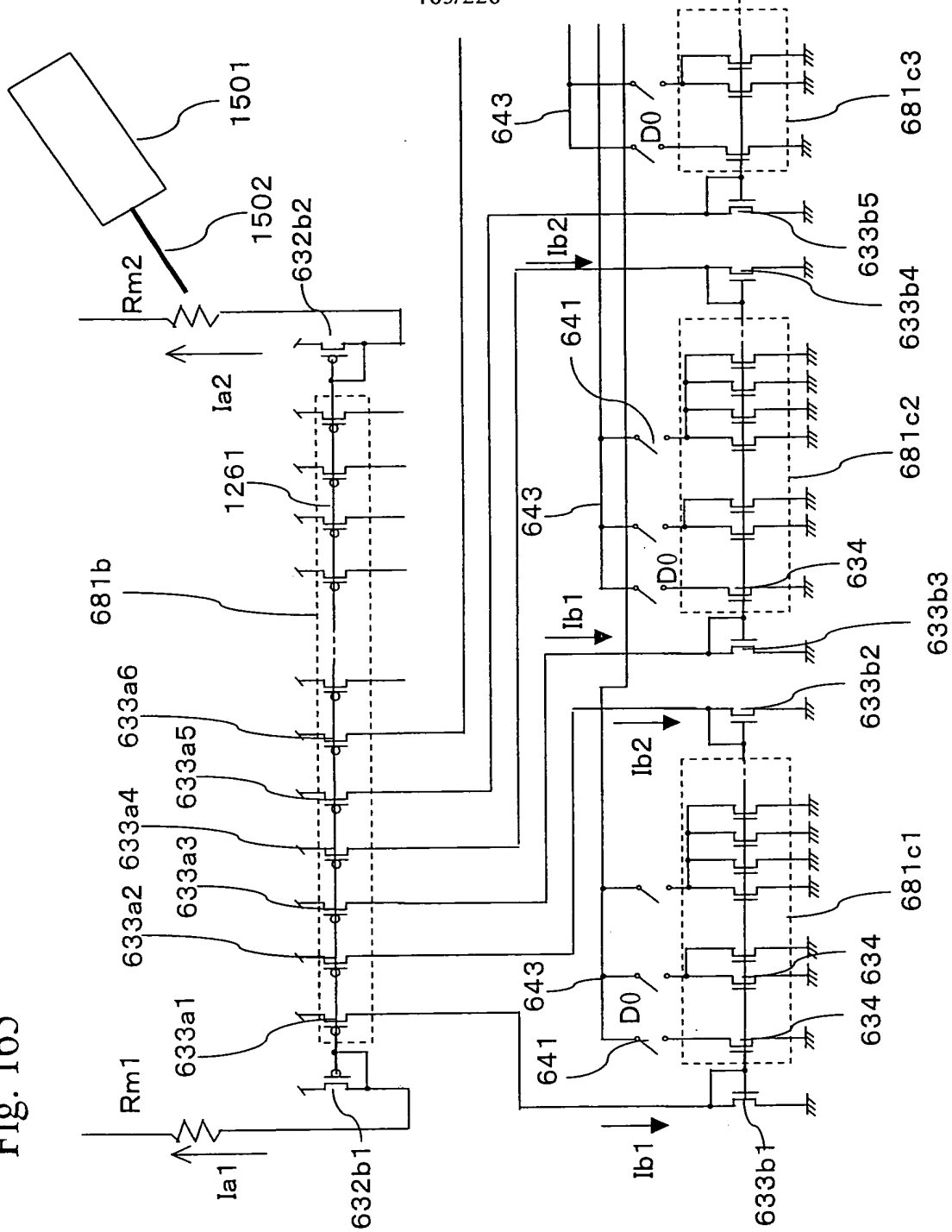
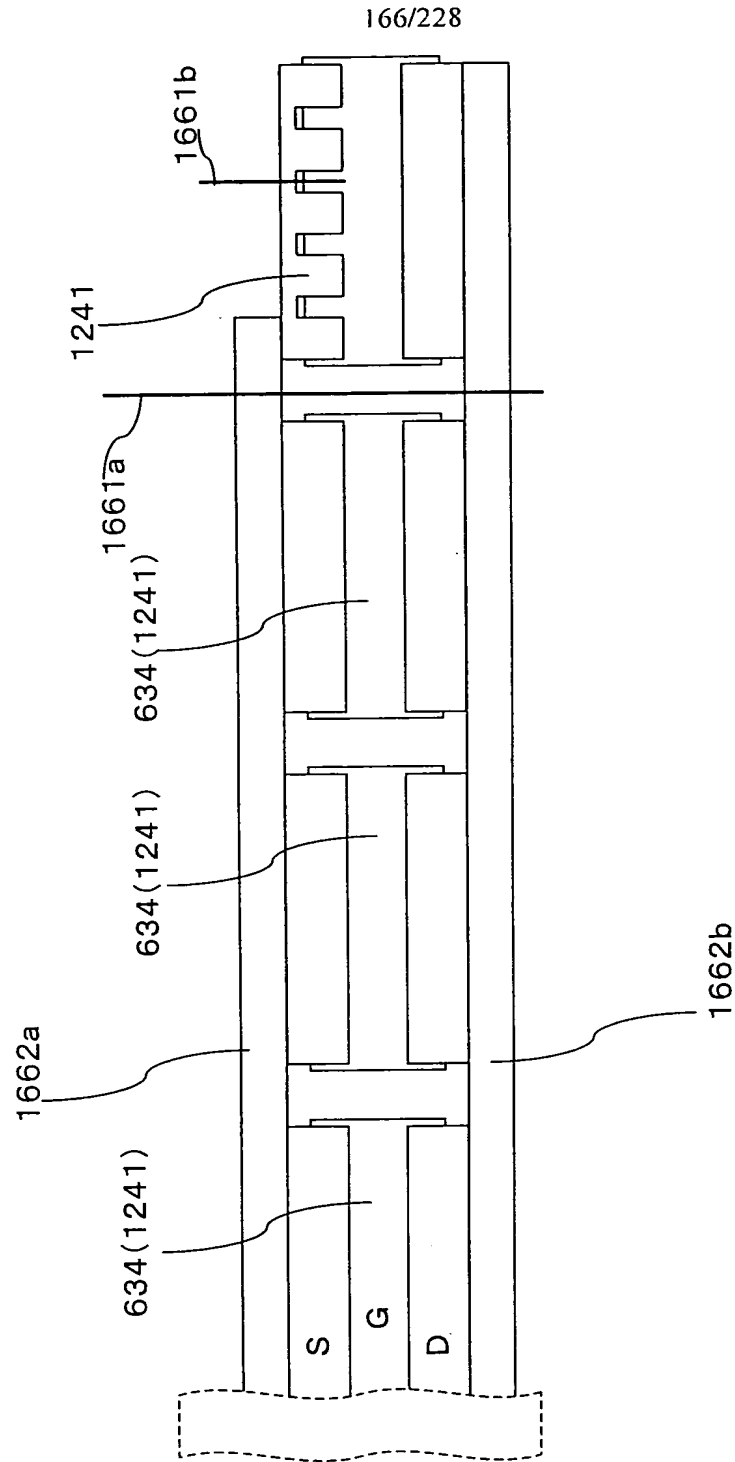


Fig. 166



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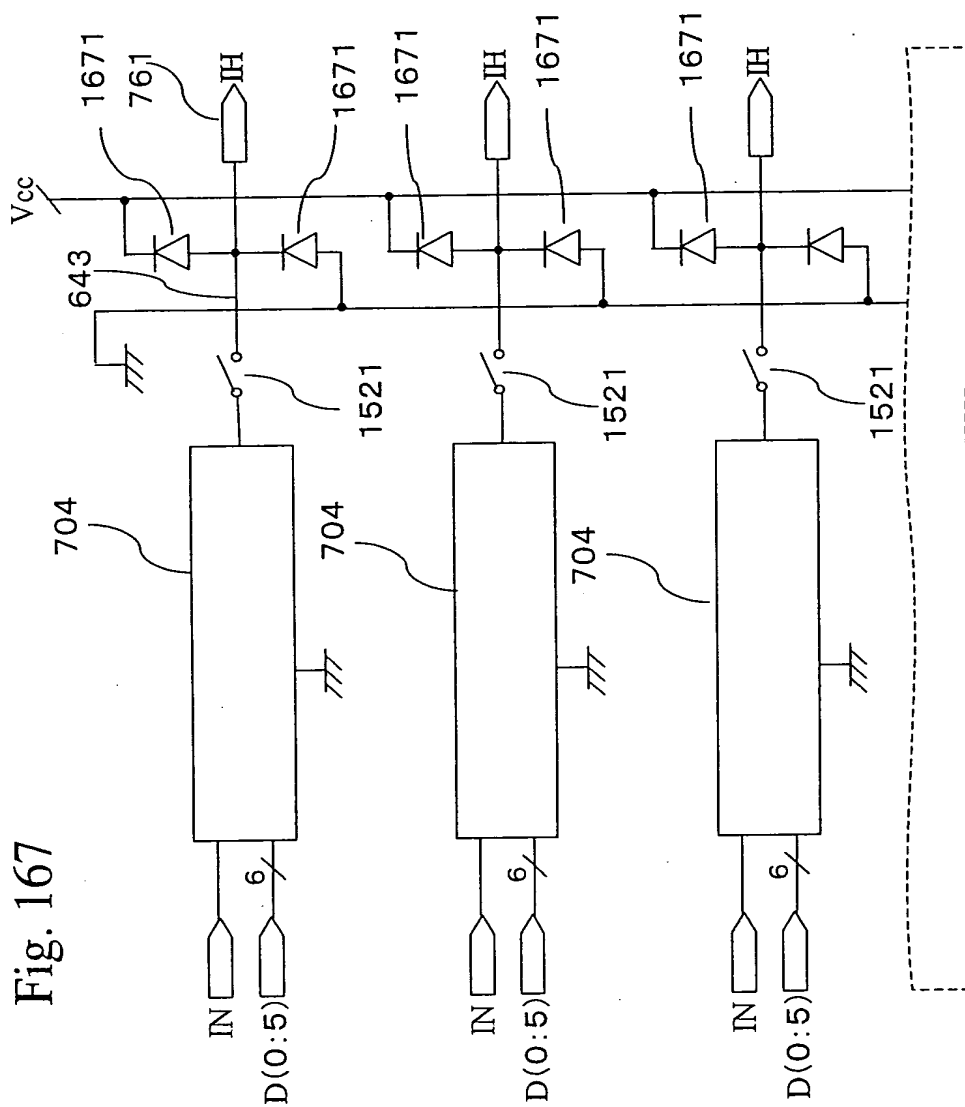
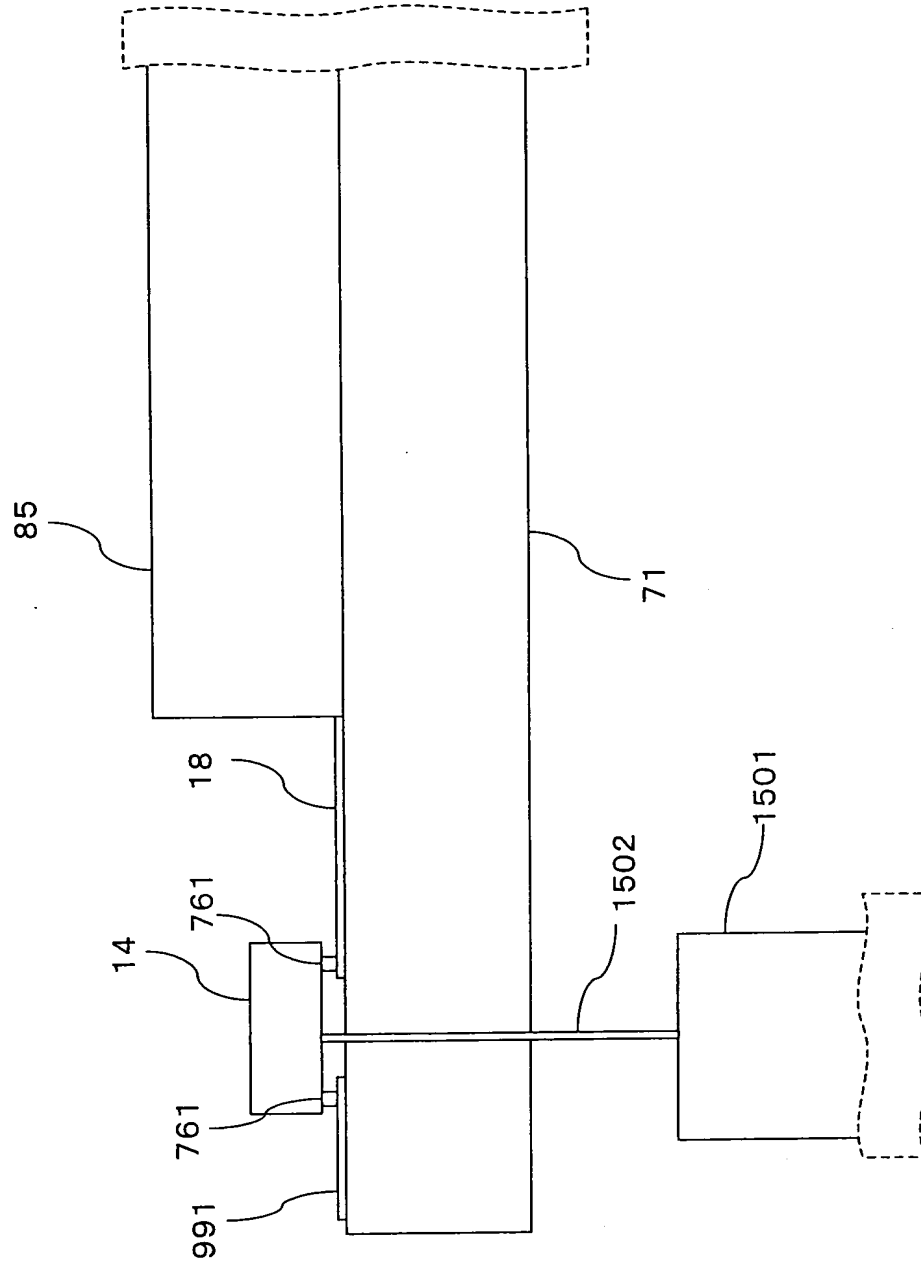


Fig. 167

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Fig. 168



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Fig. 169 (b)

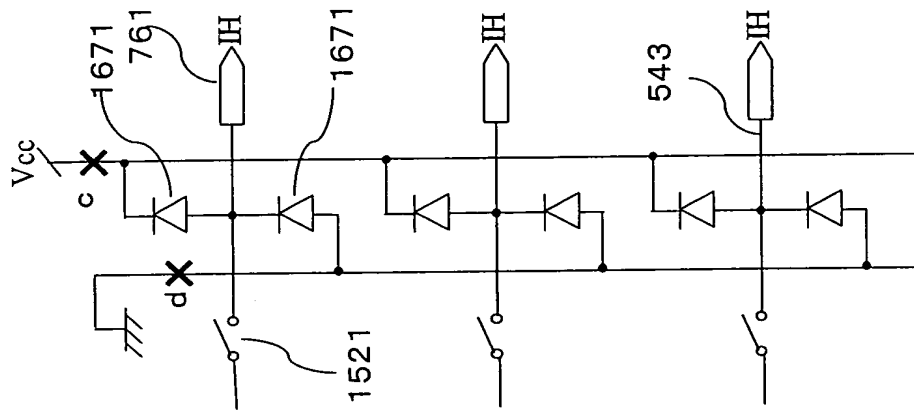
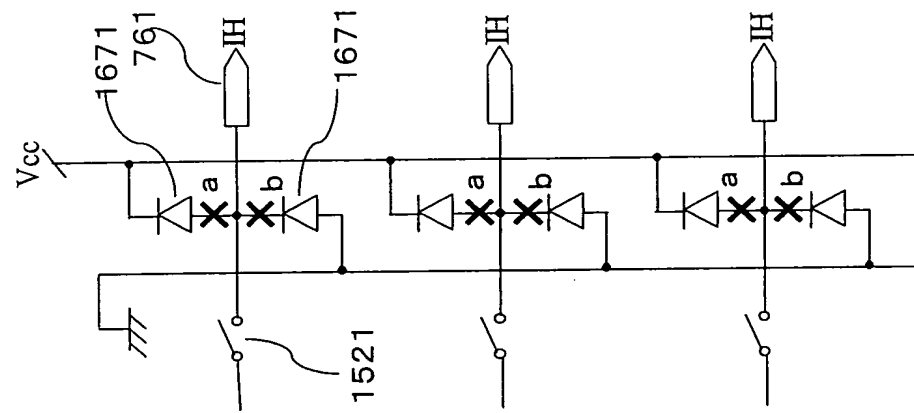
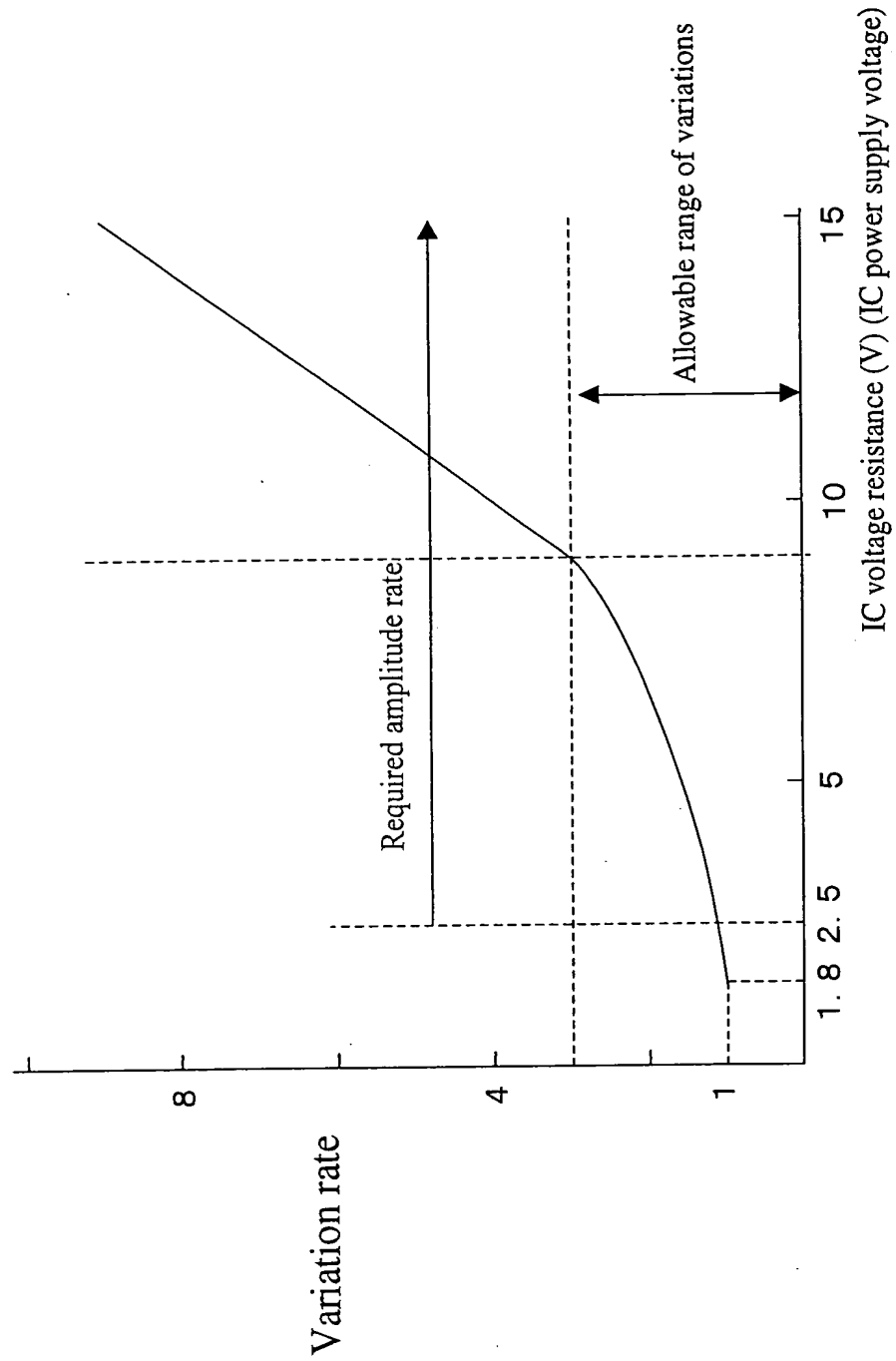


Fig. 169 (a)



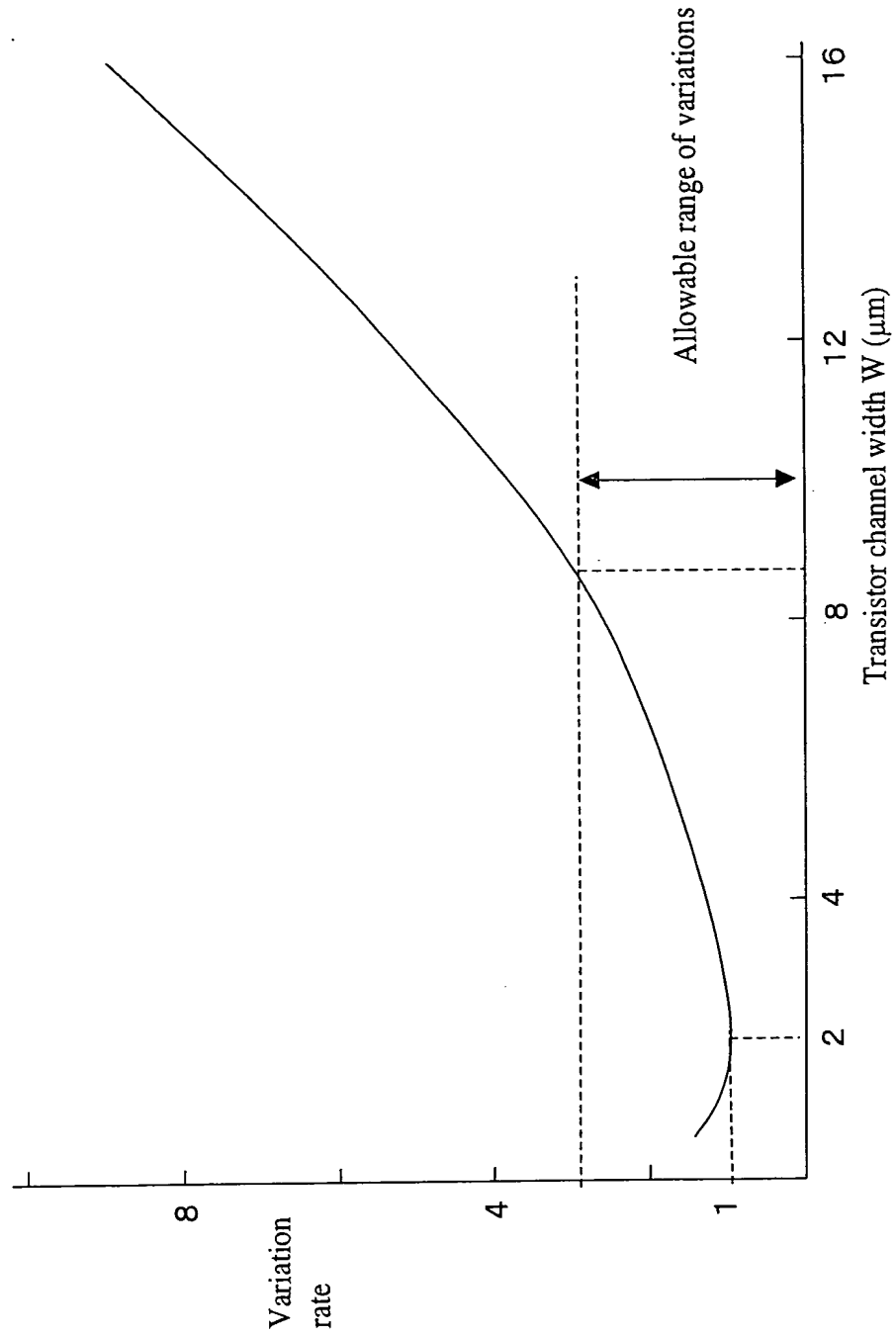
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Fig. 170



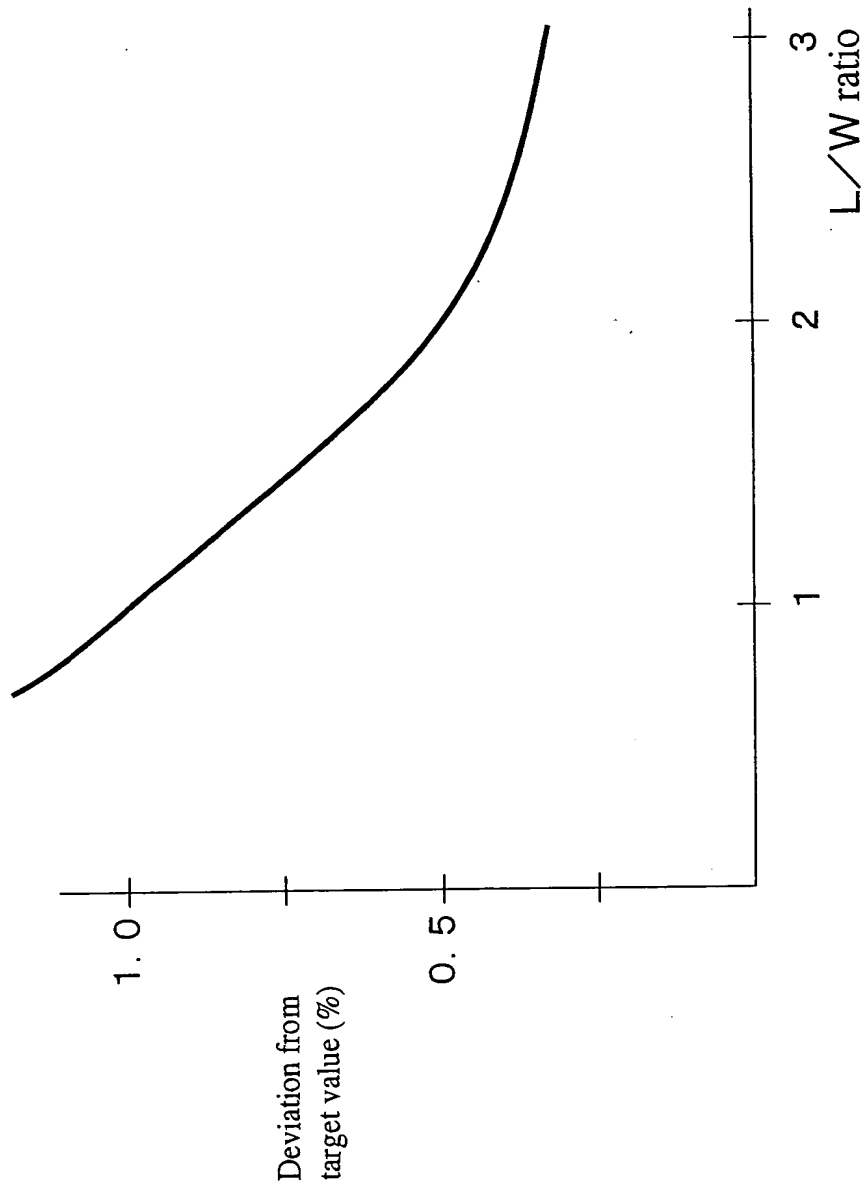
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Fig. 171



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Fig. 172



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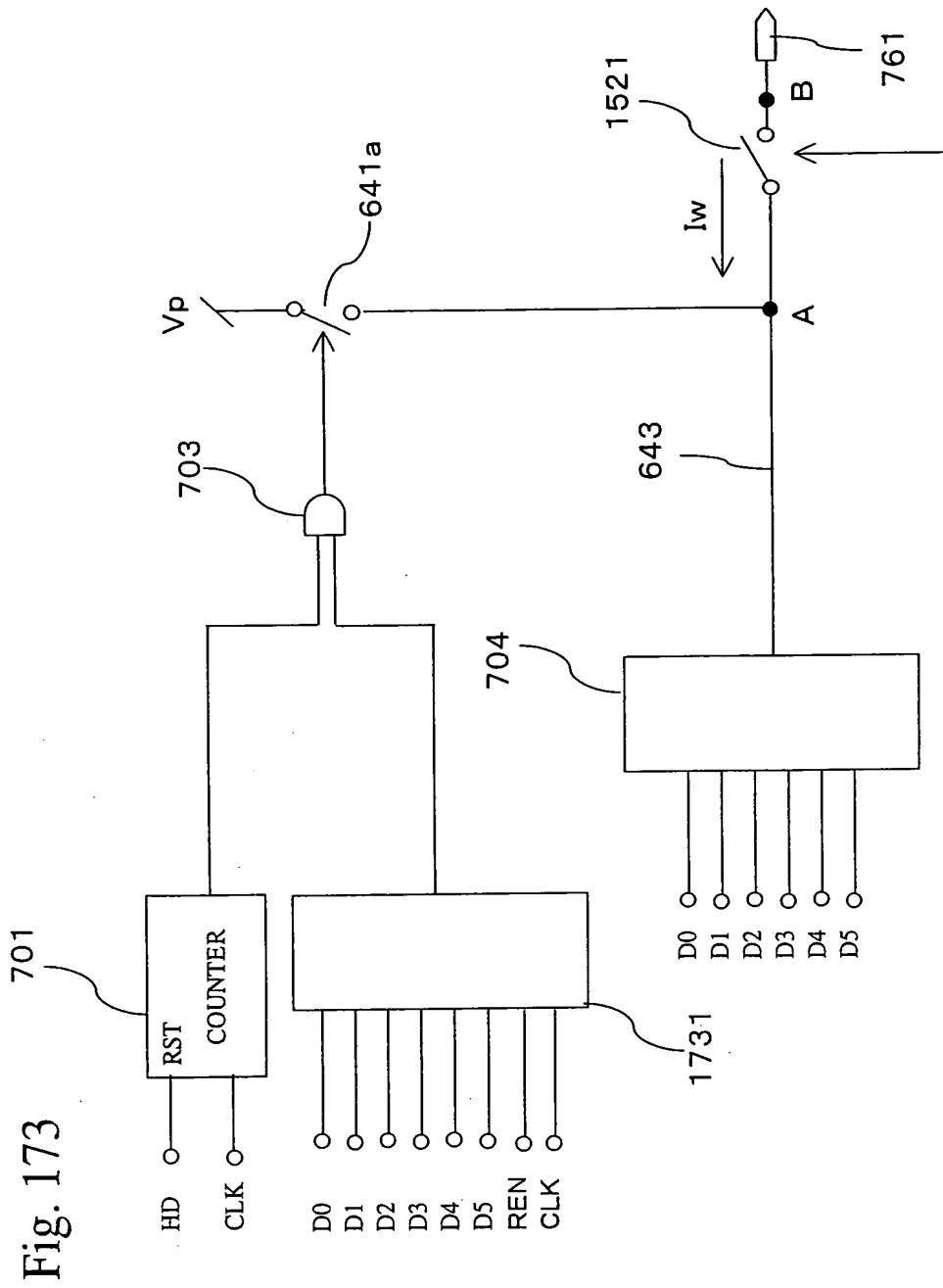


Fig. 174

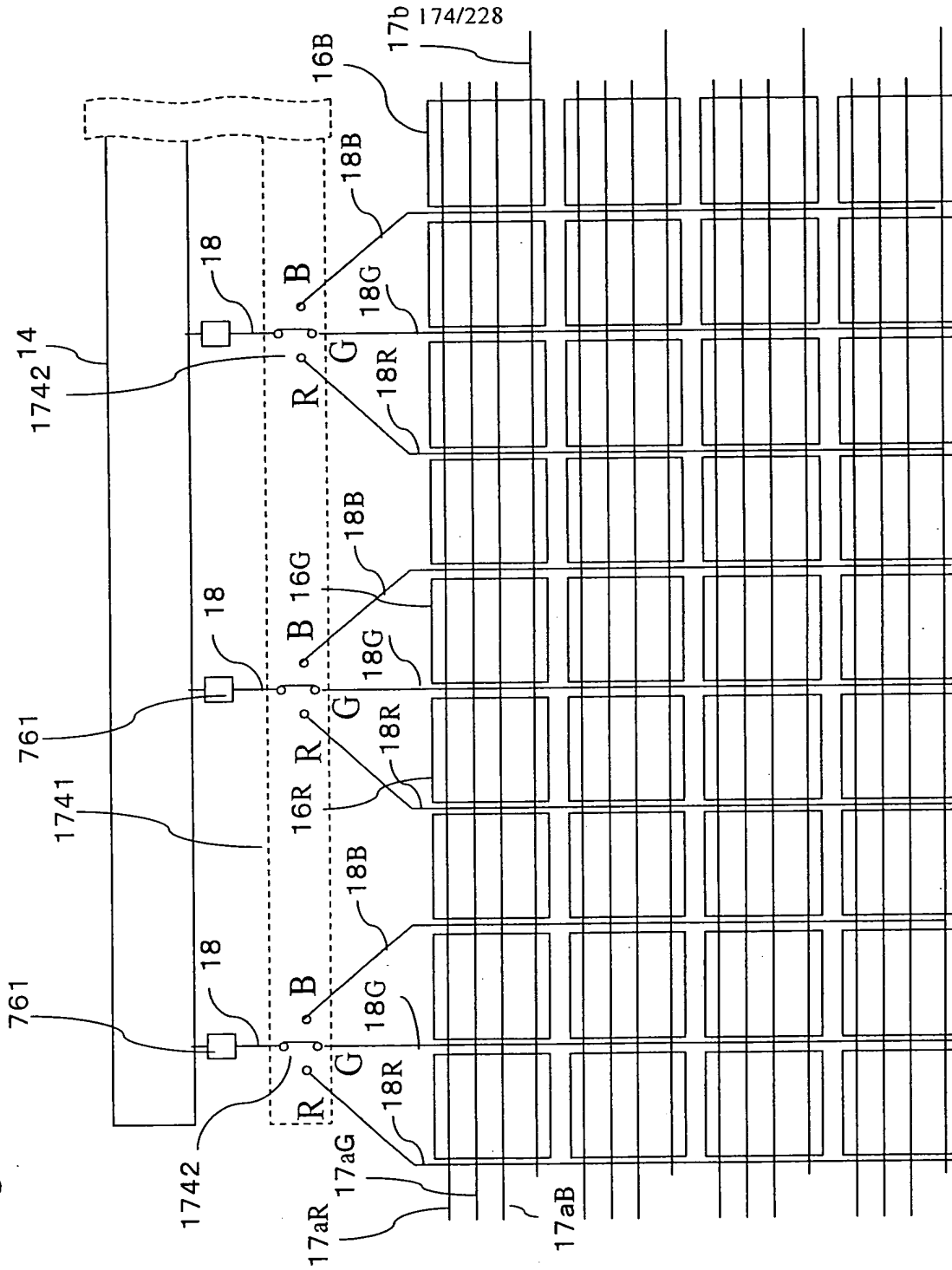


Fig. 175

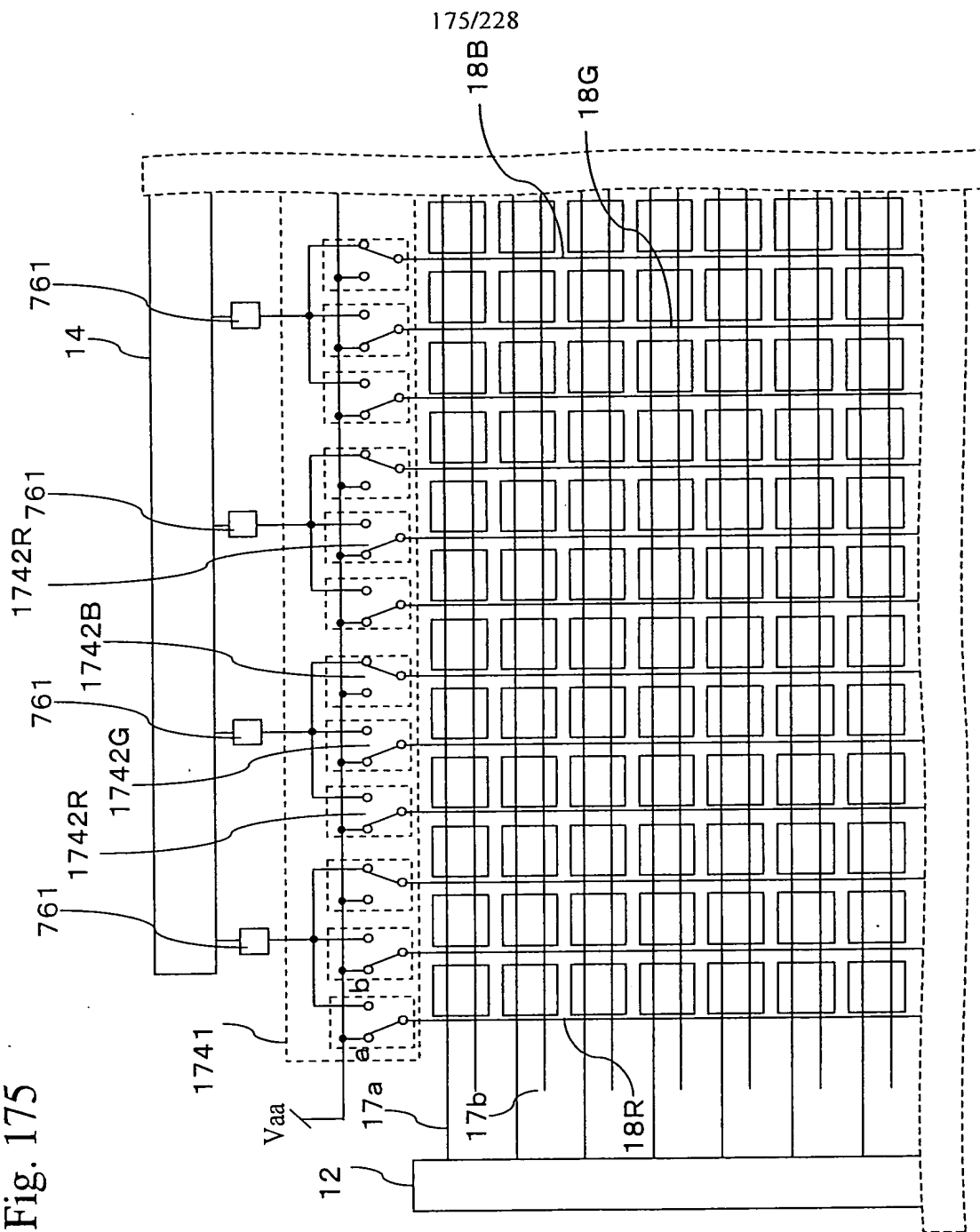
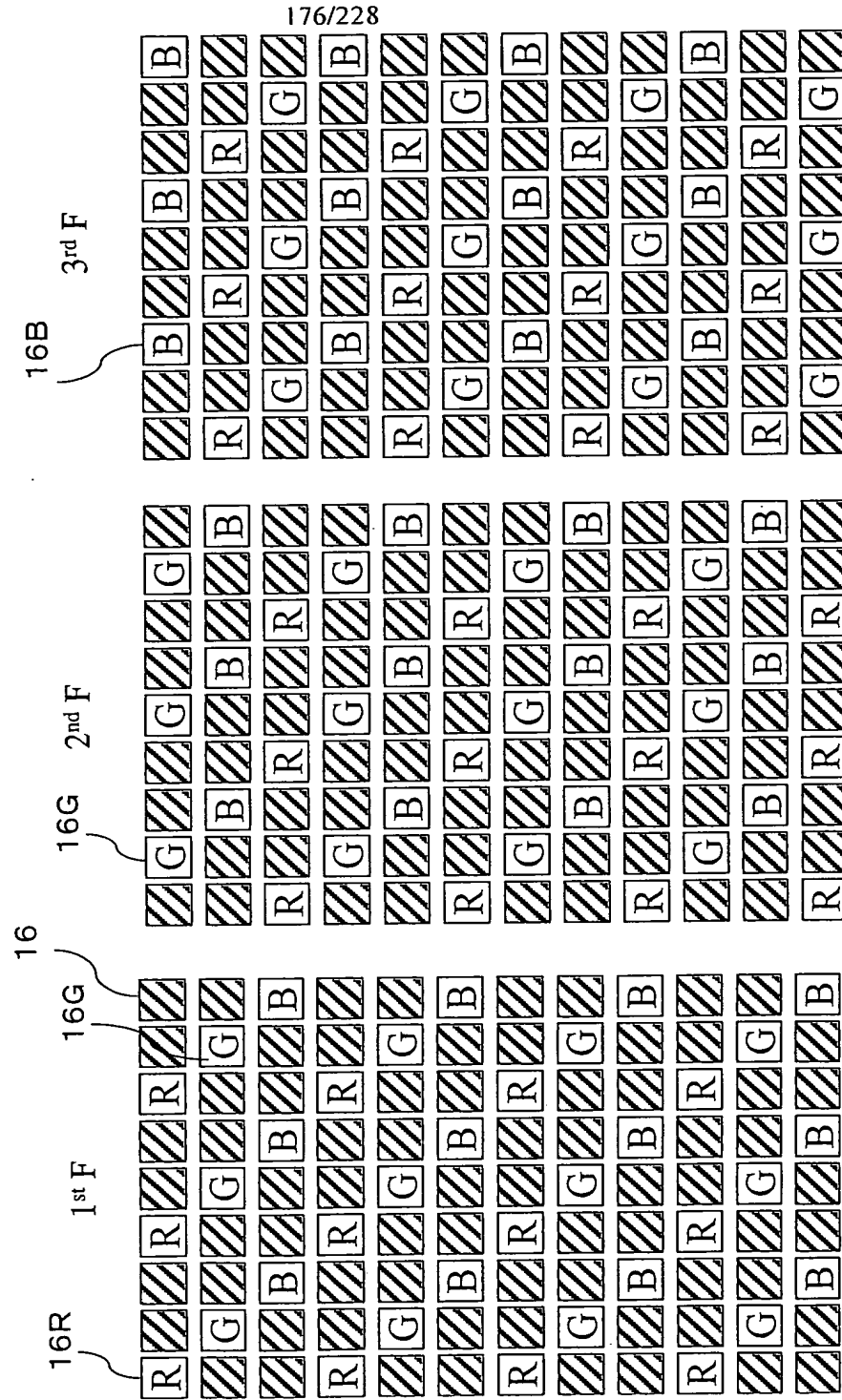


Fig. 176 (a)

Fig. 176 (b)

Fig. 176 (c)



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Fig. 178 (b)

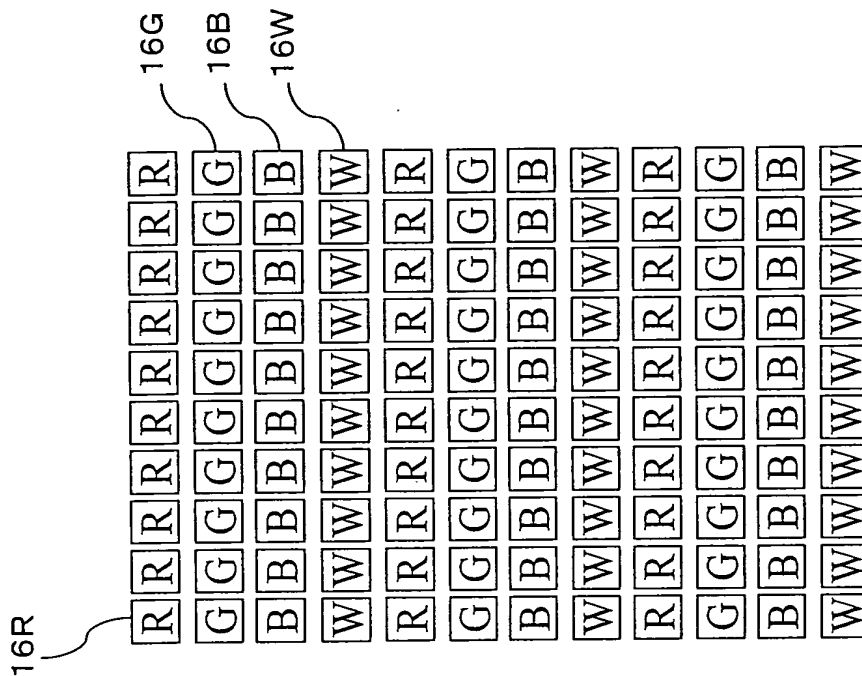


Fig. 178 (a)

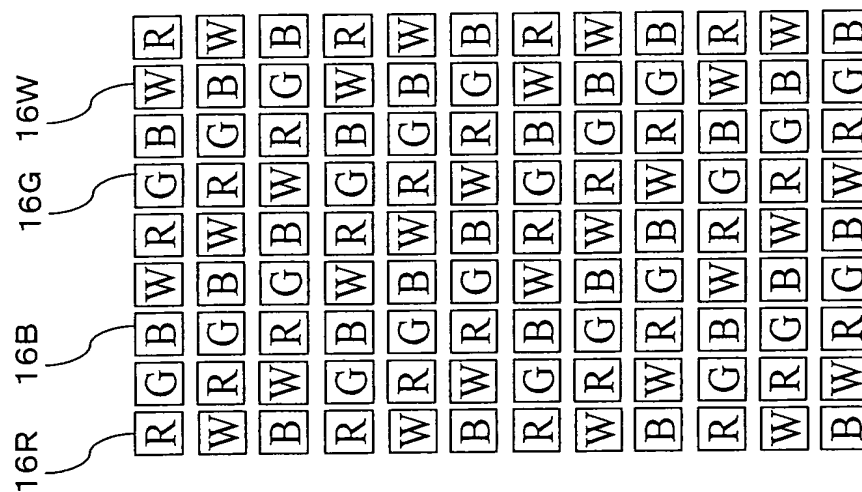


Fig. 179 (b)

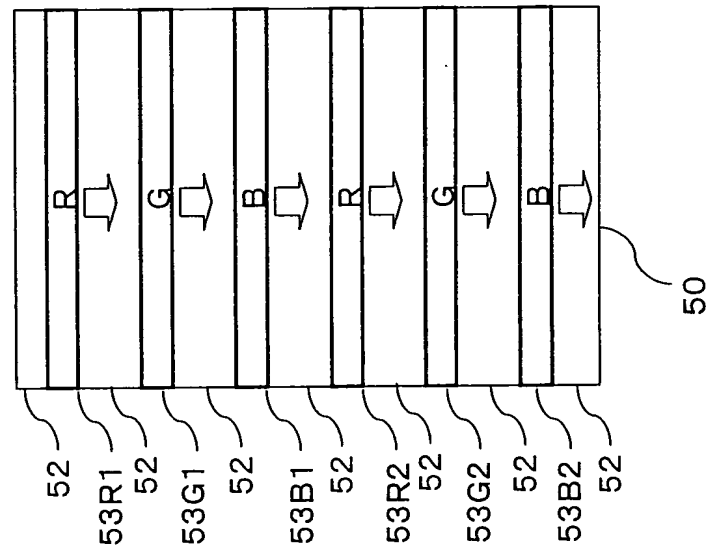
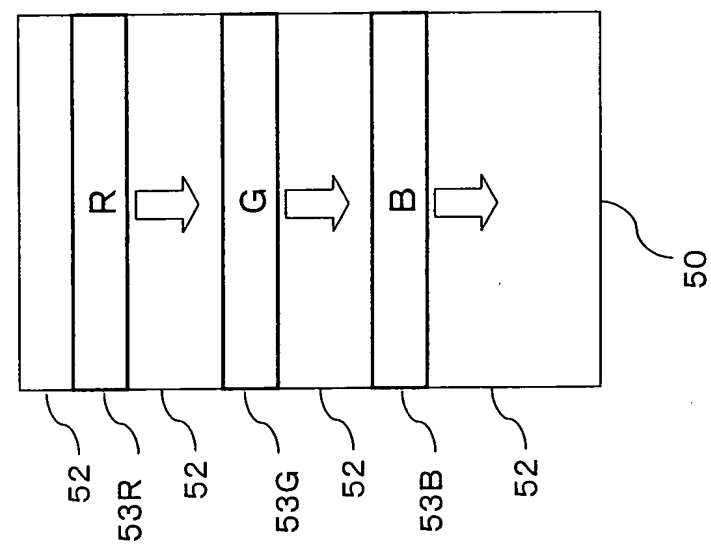


Fig. 179 (a)



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Fig. 180 (b)

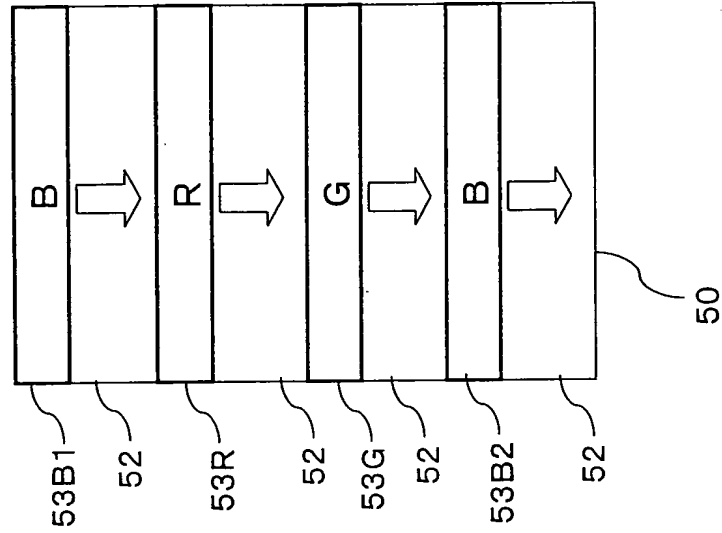


Fig. 180 (a)

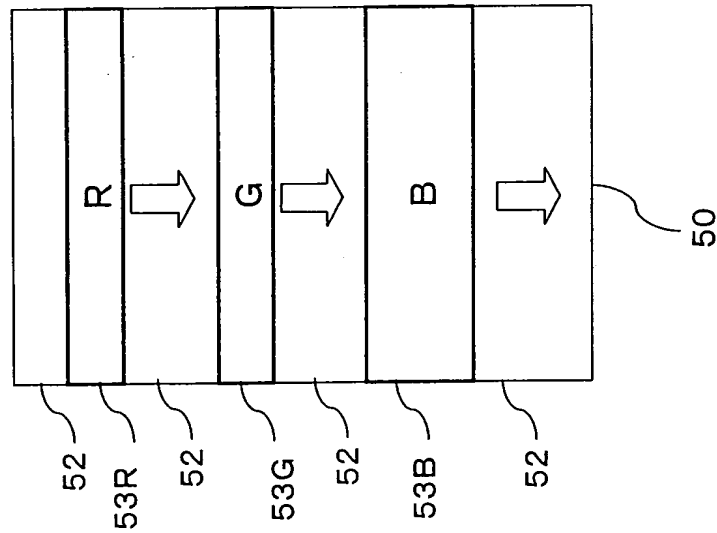
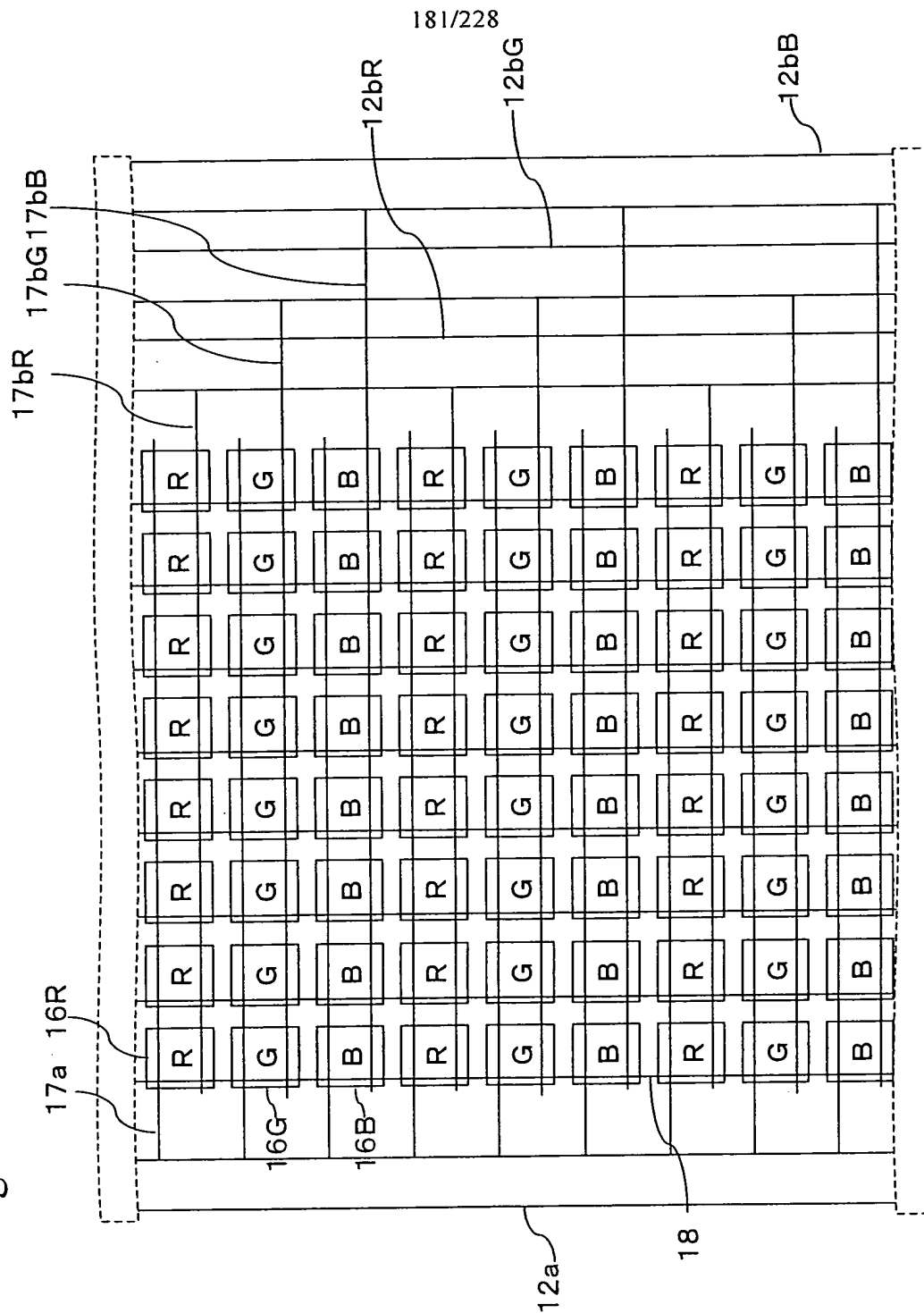
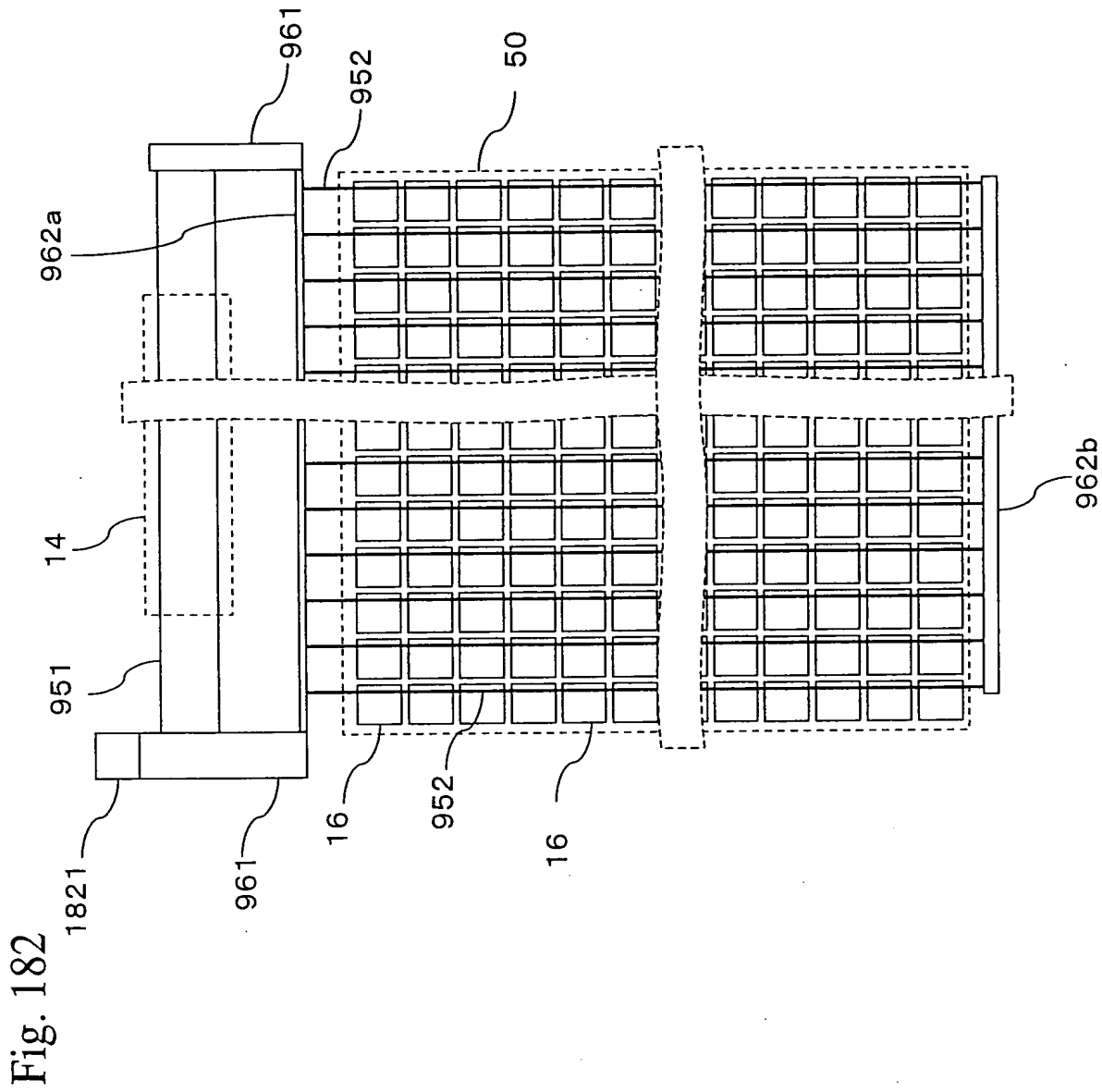


Fig. 181



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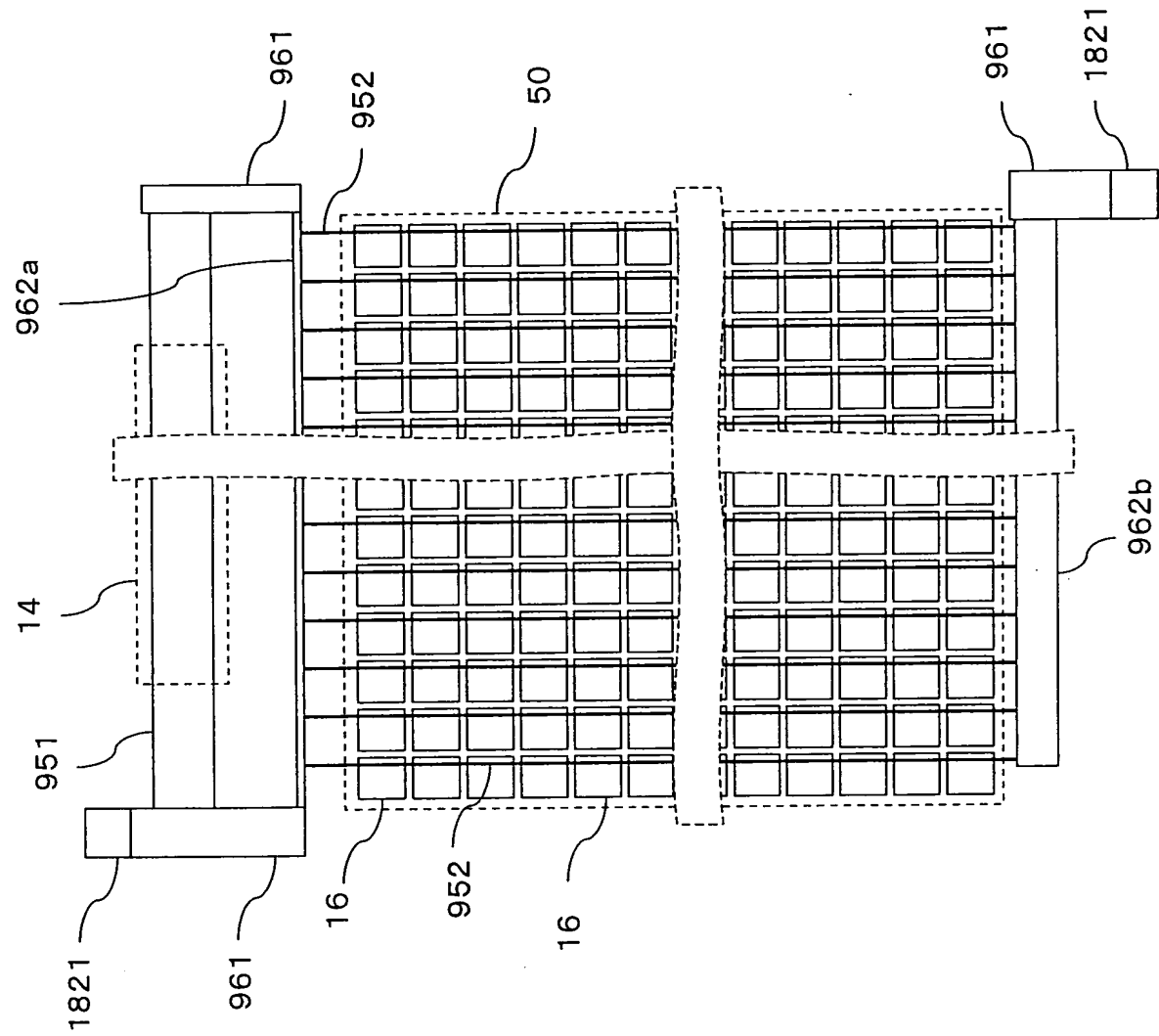
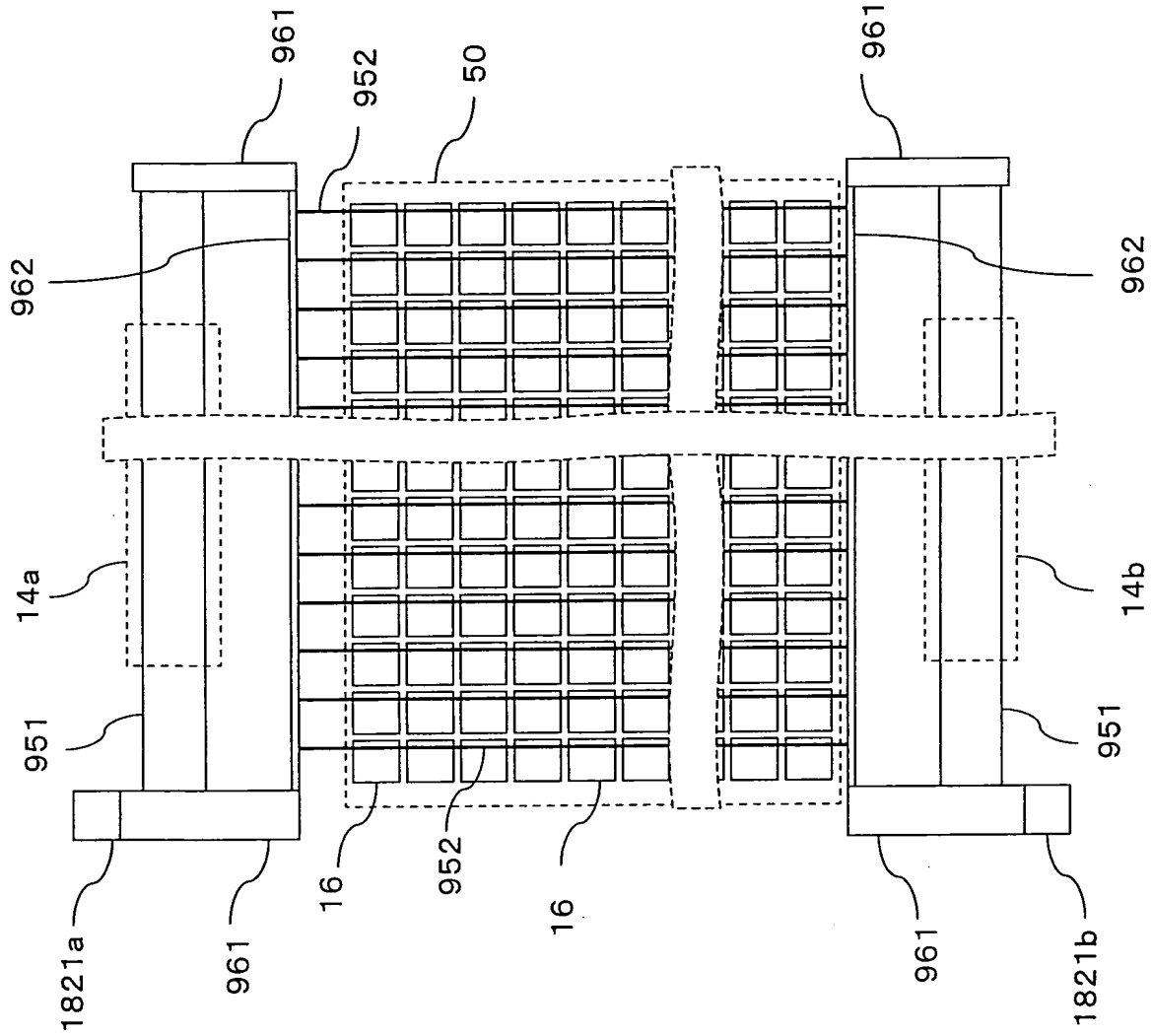


Fig. 183

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Fig. 184



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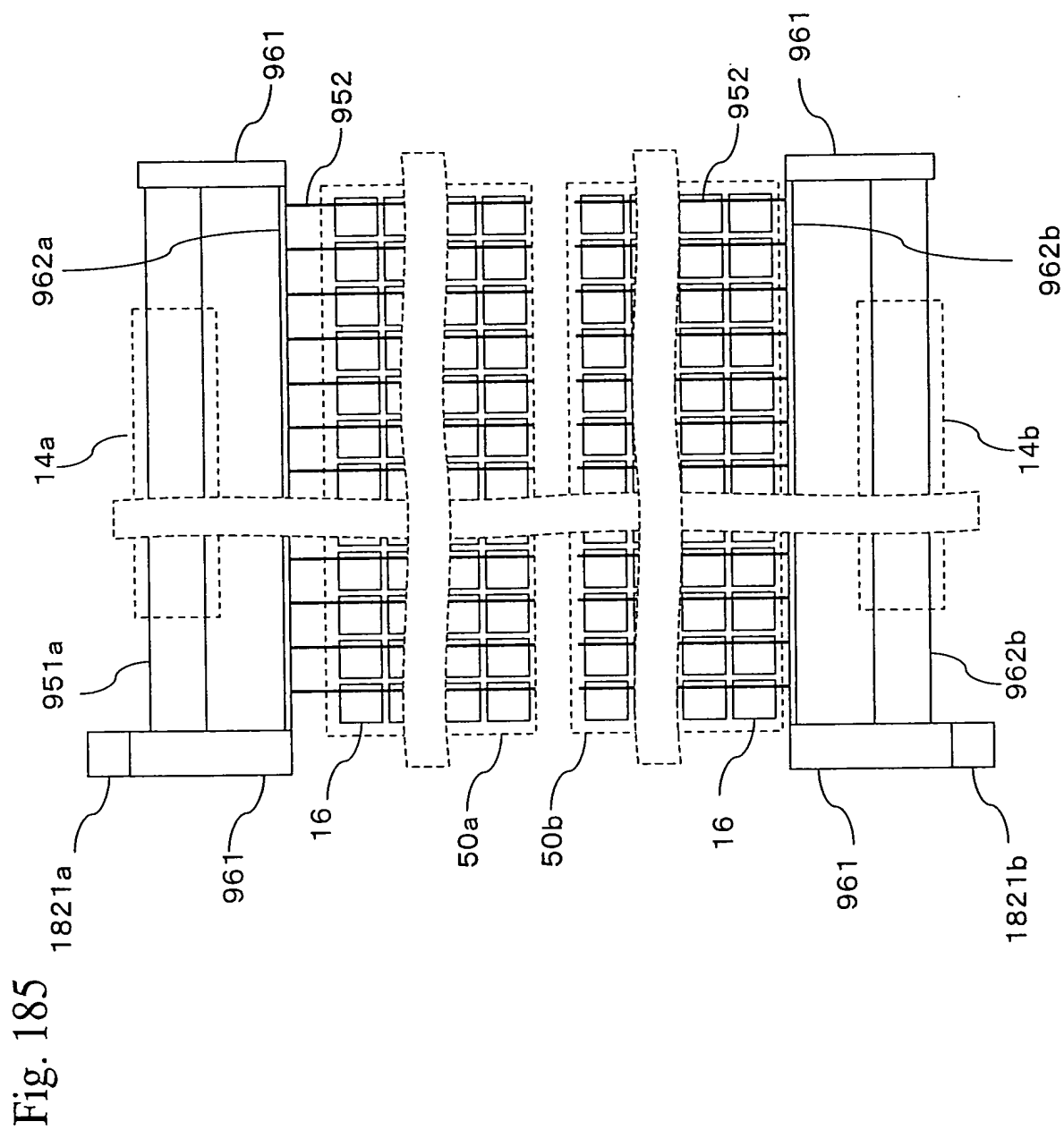


Fig. 186 (a1)

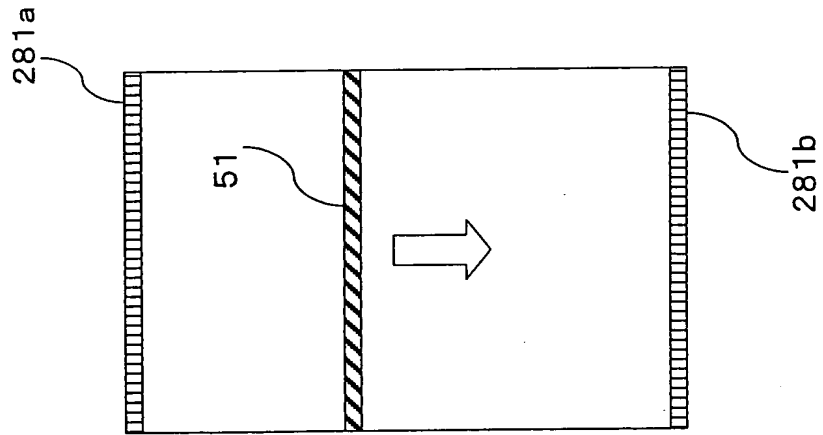


Fig. 186 (a2)

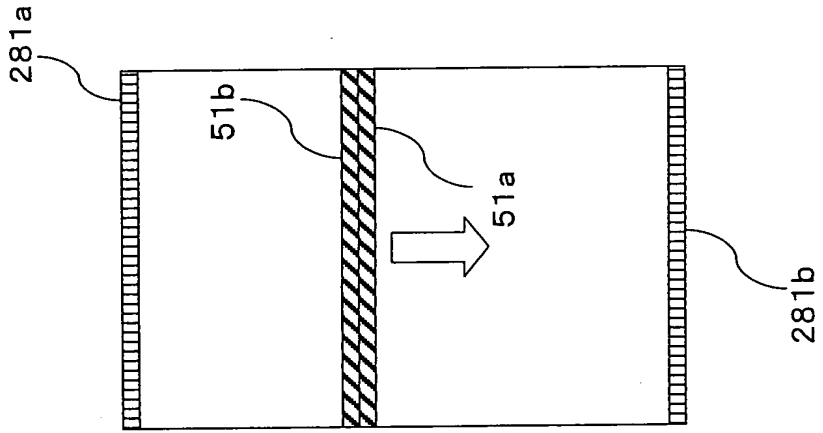
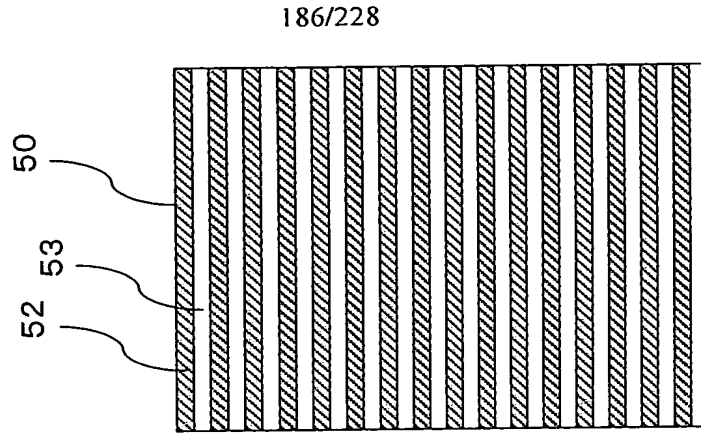
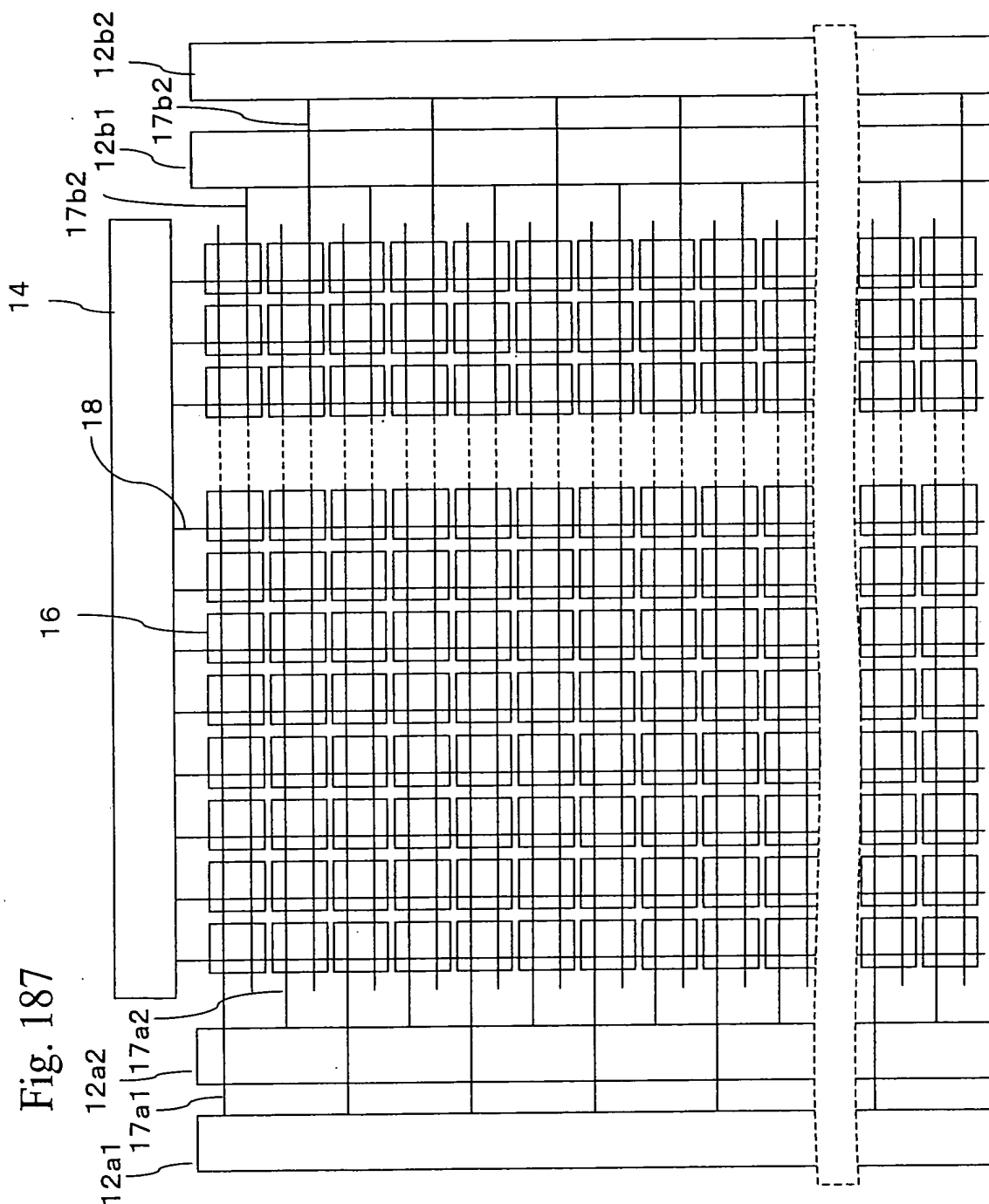


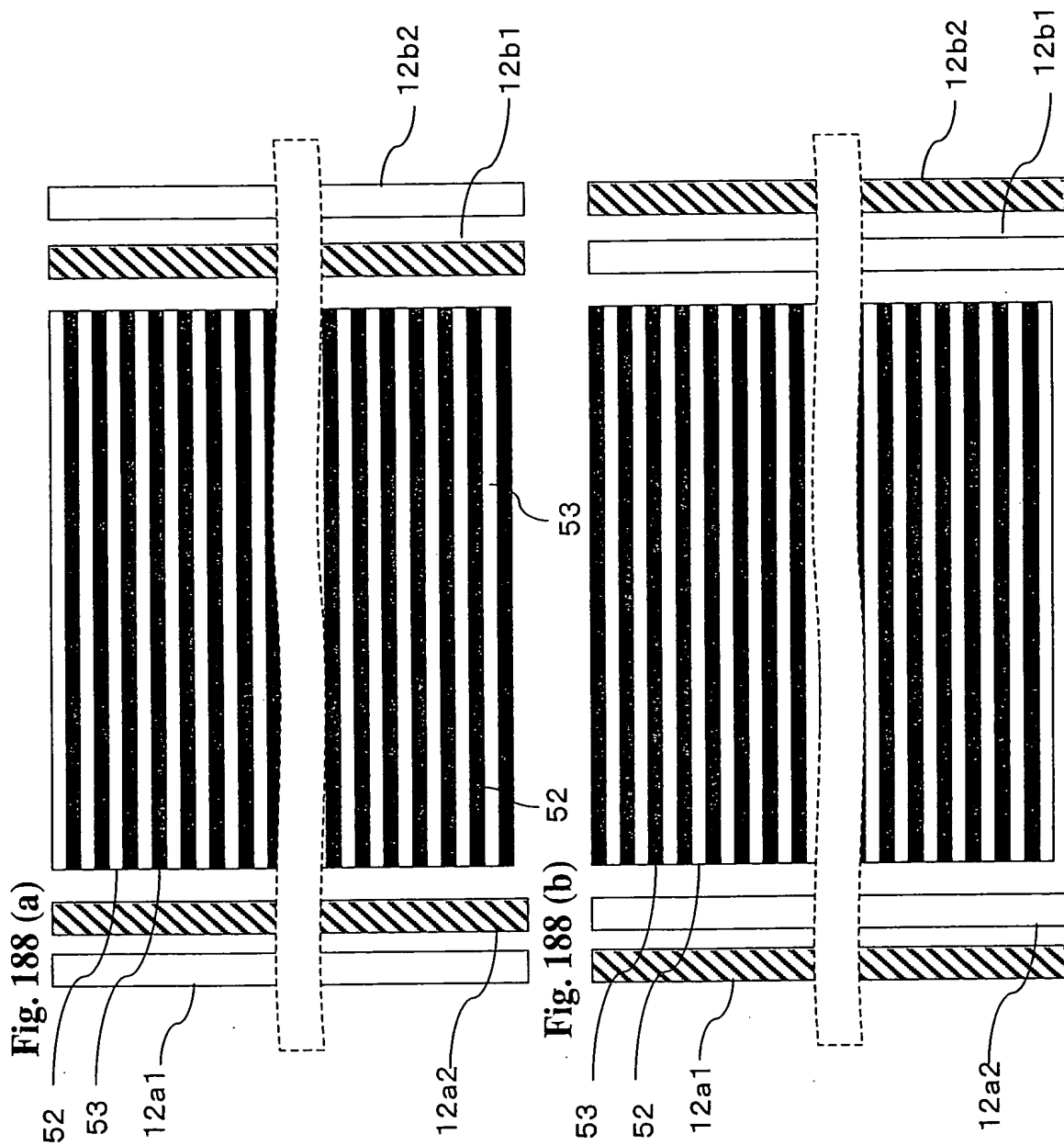
Fig. 186 (b)



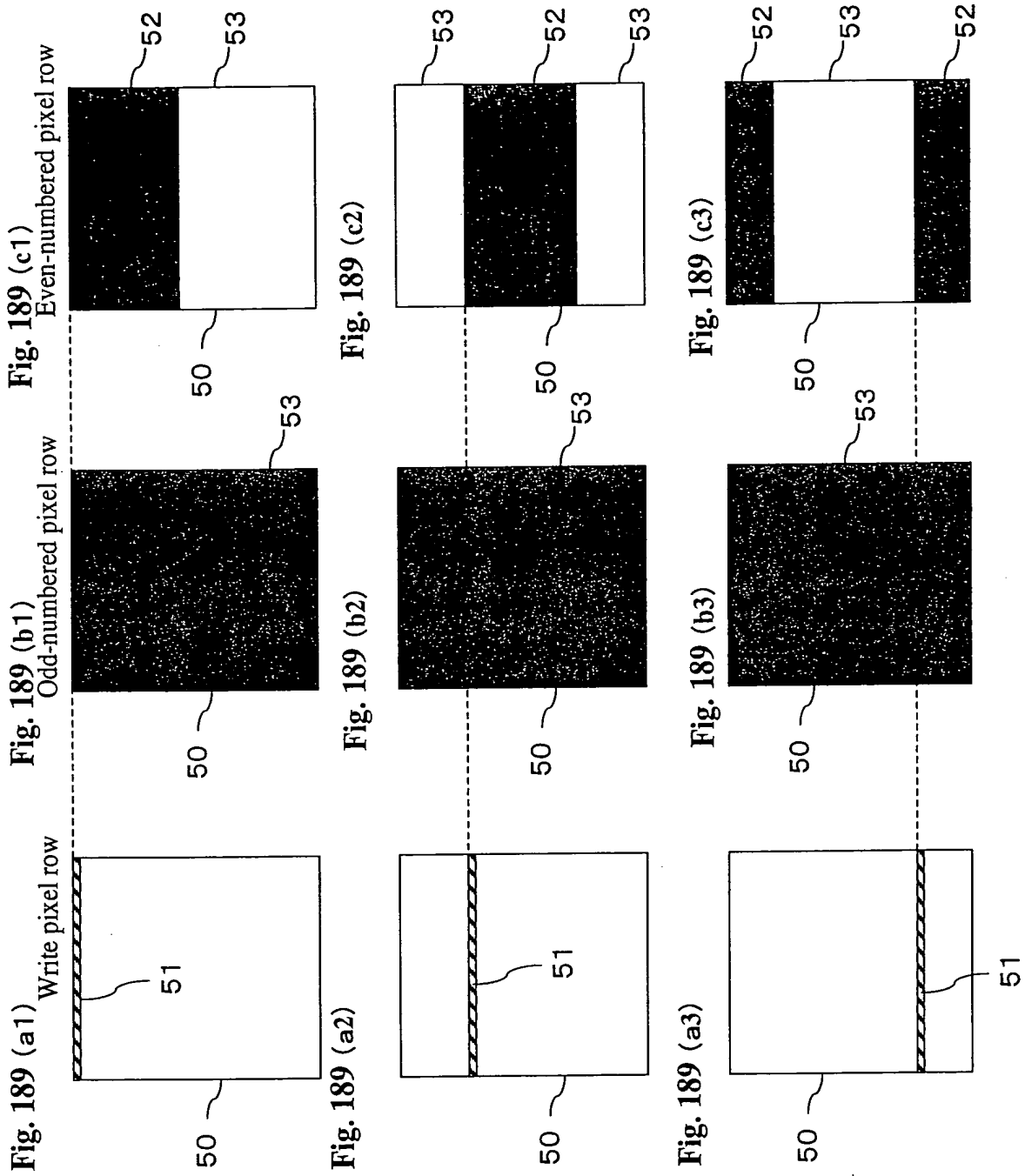
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Fig. 190 (a1) Write pixel row

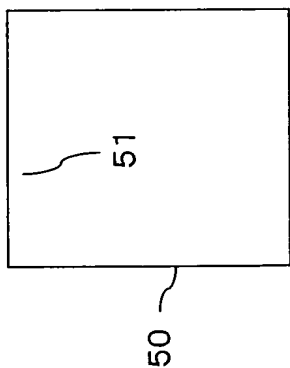


Fig. 190 (a2)

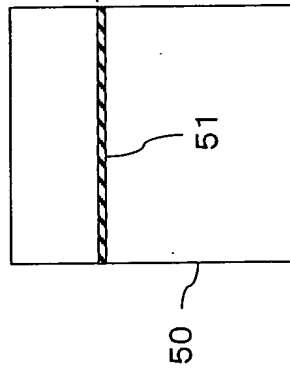


Fig. 190 (a3)

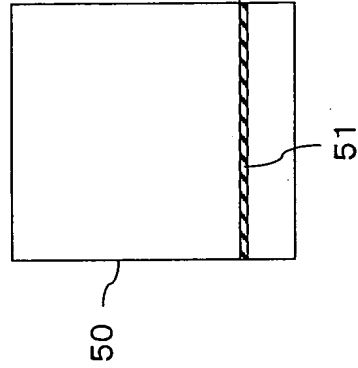


Fig. 190 (b1) Odd-numbered pixel row

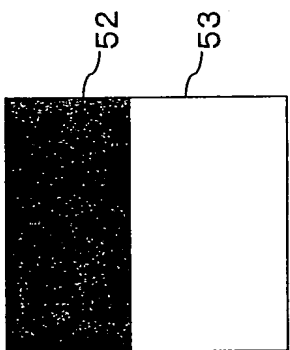


Fig. 190 (b2)

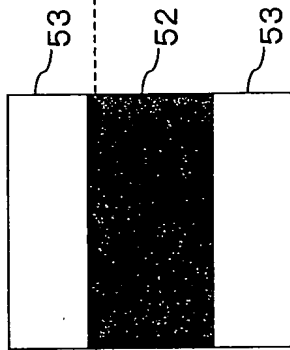


Fig. 190 (b3)

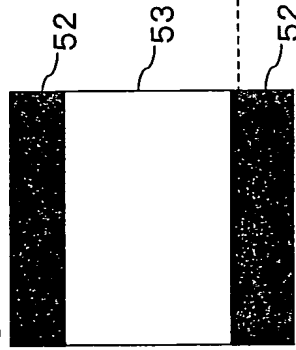


Fig. 190 (c1) Even-numbered pixel row

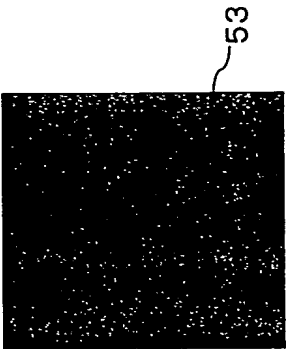


Fig. 190 (c2)

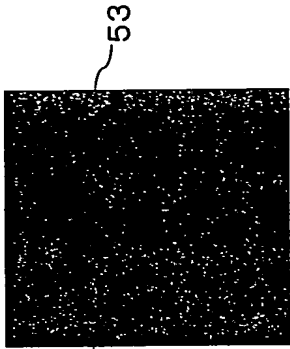
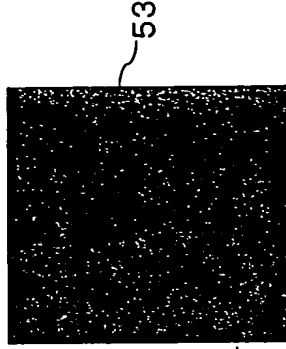


Fig. 190 (c3)



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Fig. 191 (c1)
Even-numbered pixel row

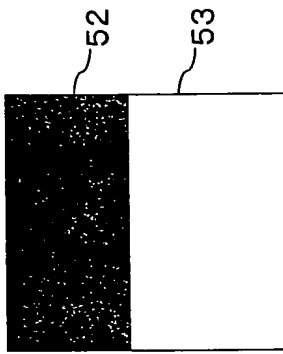


Fig. 191 (c2)

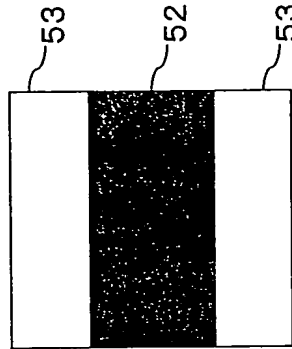


Fig. 191 (c3)

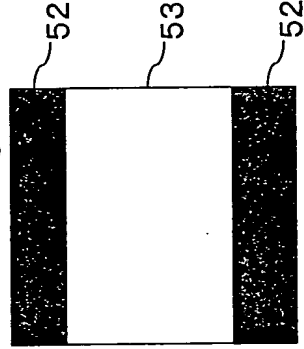


Fig. 191 (b1)
Odd-numbered pixel row

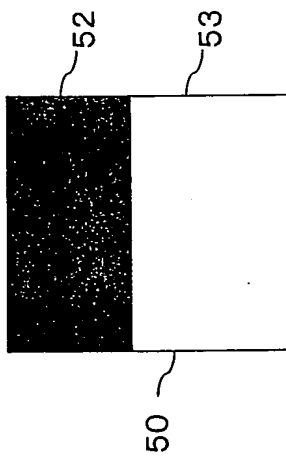


Fig. 191 (b2)

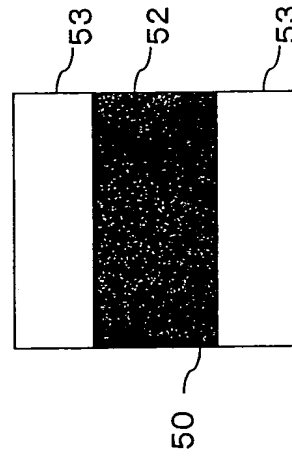
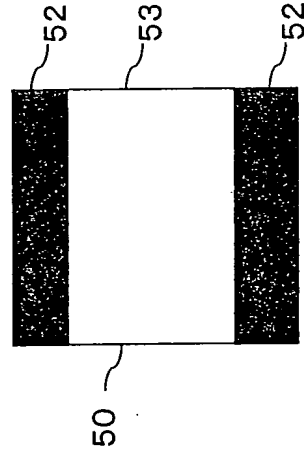


Fig. 191 (b3)



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Fig. 192 (c1)
Even-numbered pixel row

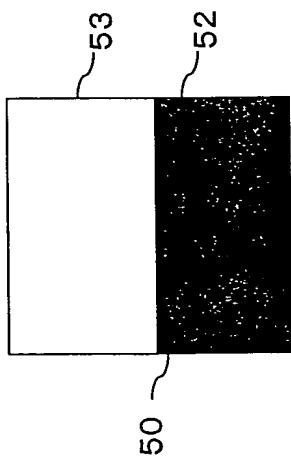


Fig. 192 (c2)

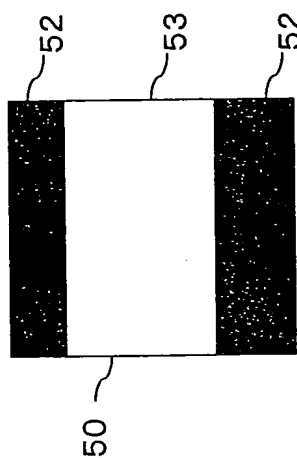


Fig. 192 (c3)

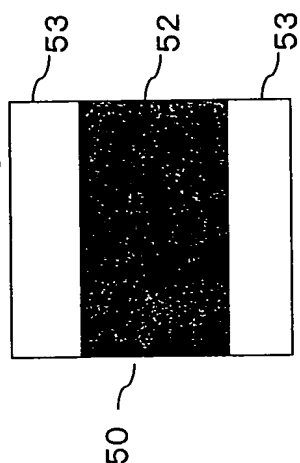


Fig. 192 (b1)
Odd-numbered pixel row

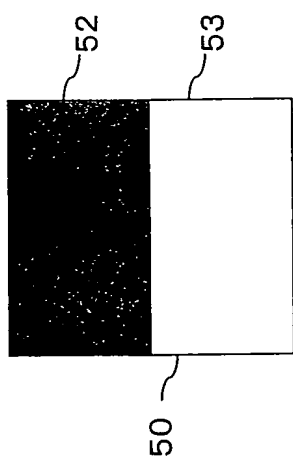


Fig. 192 (b2)

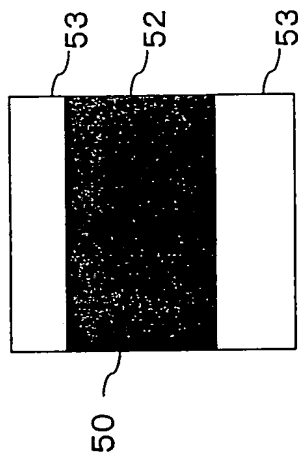
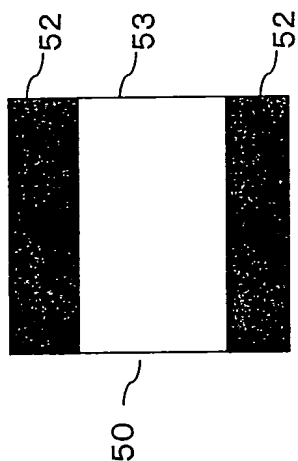
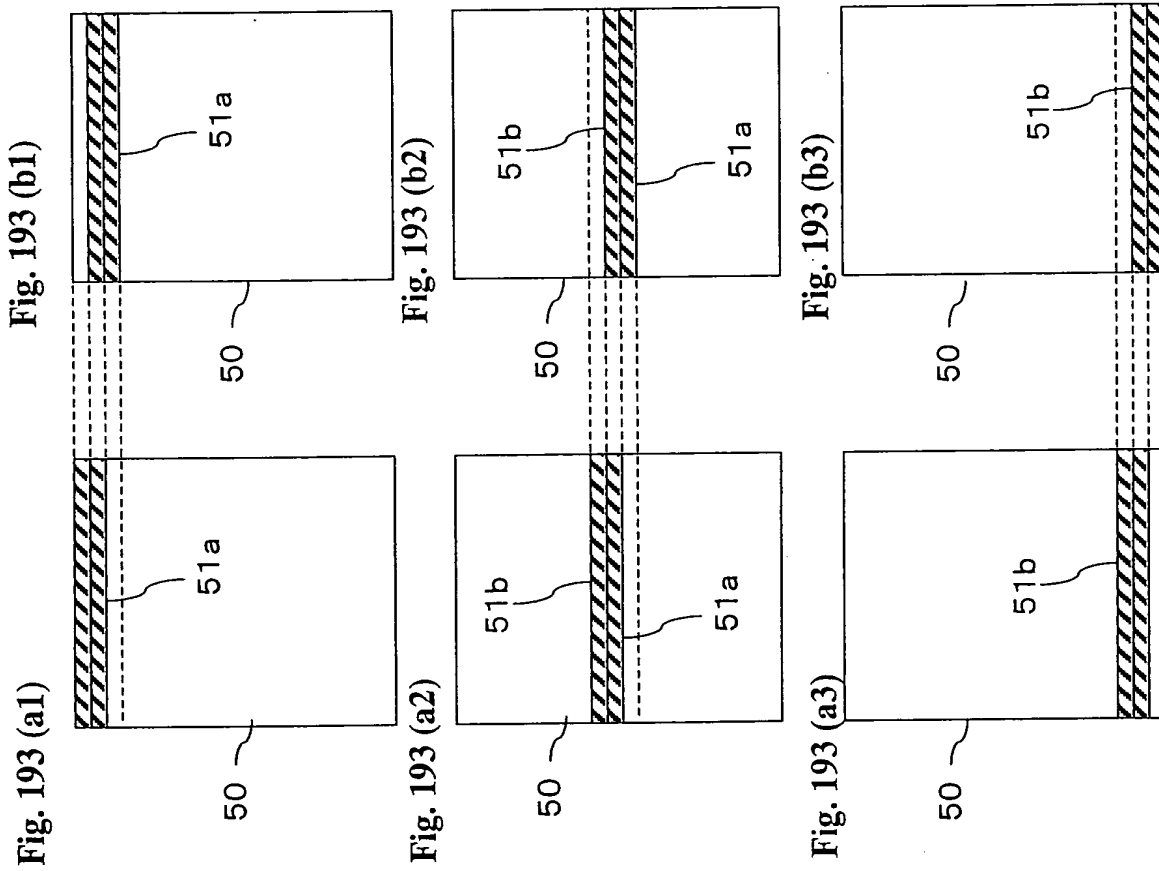


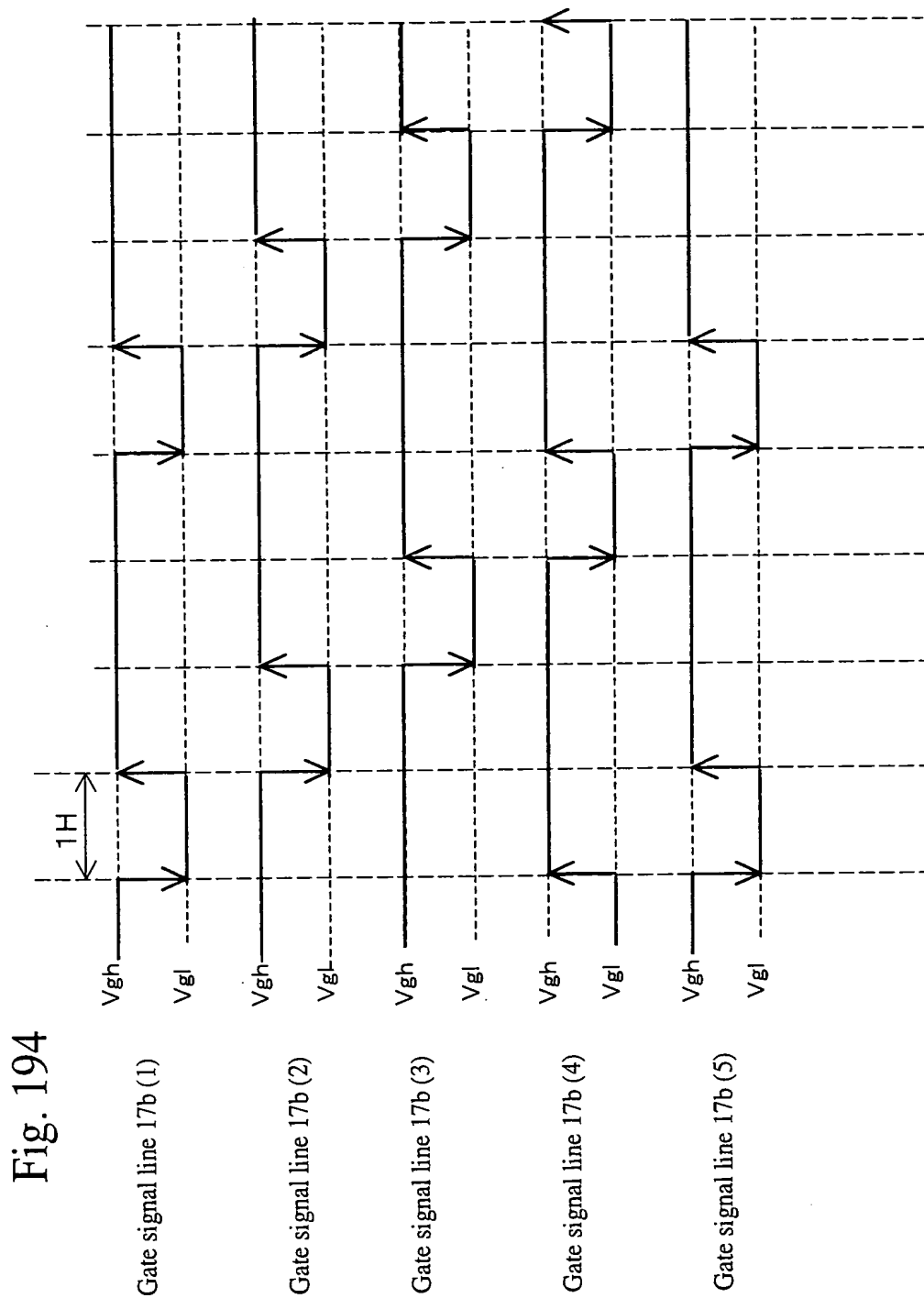
Fig. 192 (b3)



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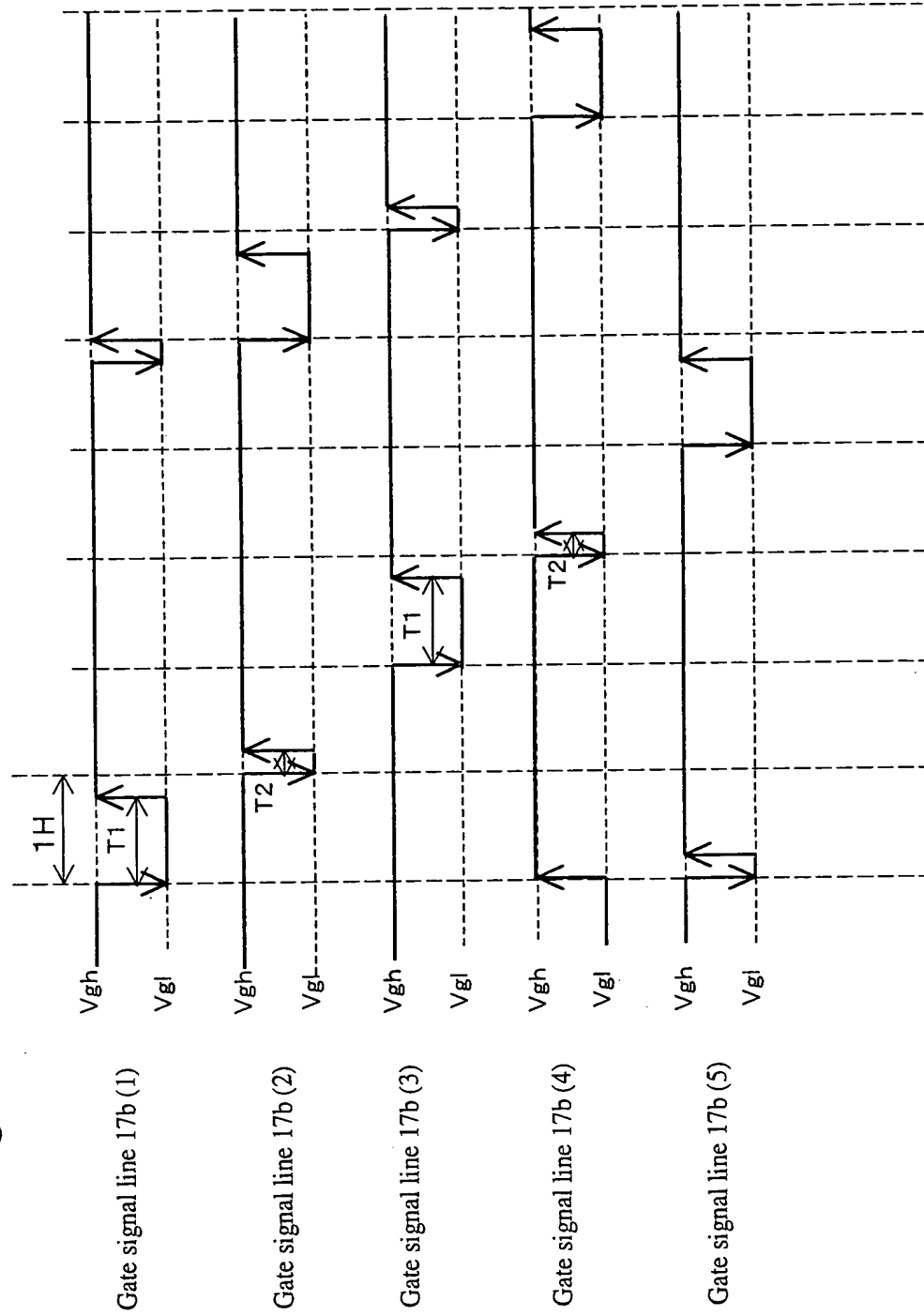


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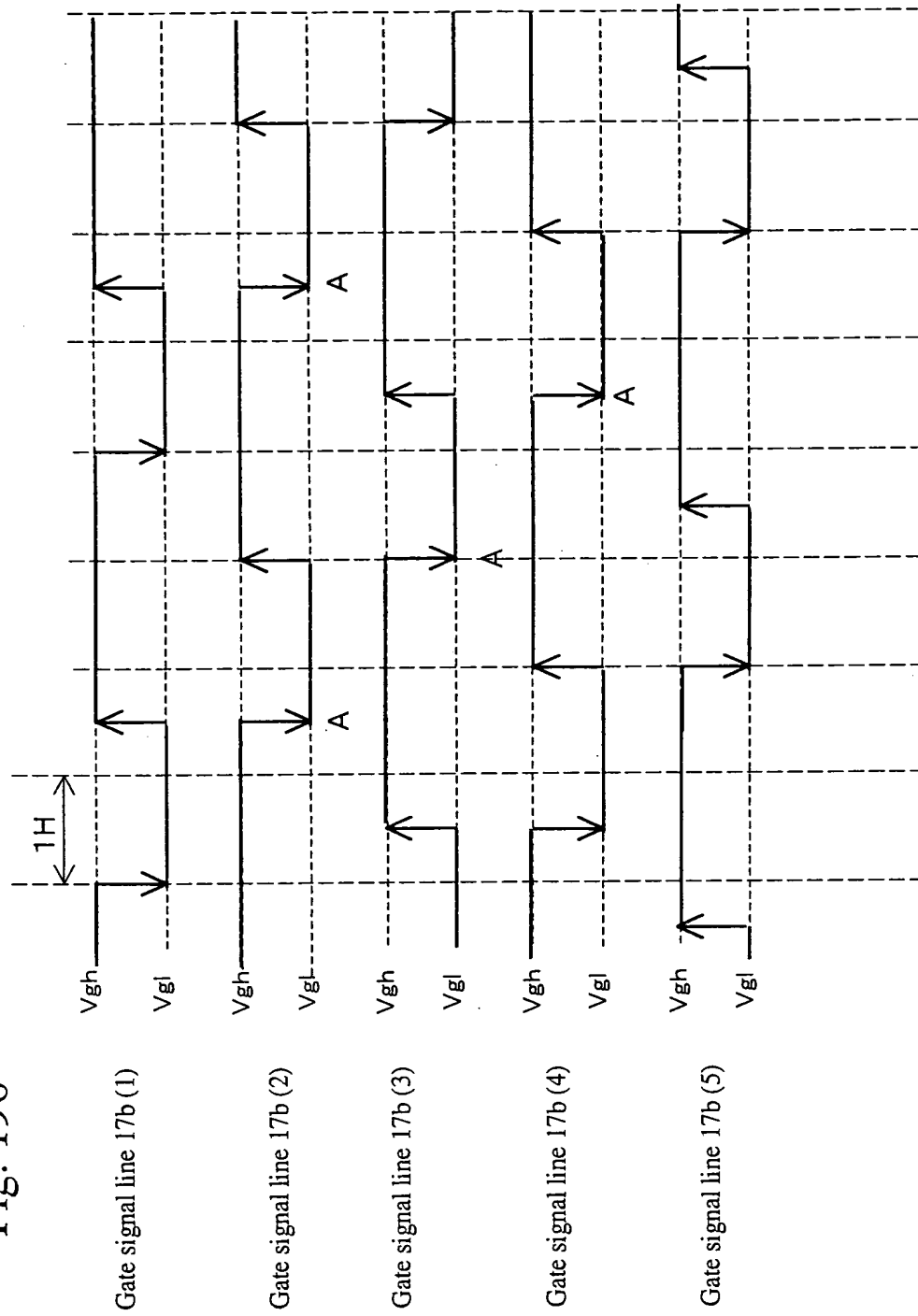
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Fig. 195



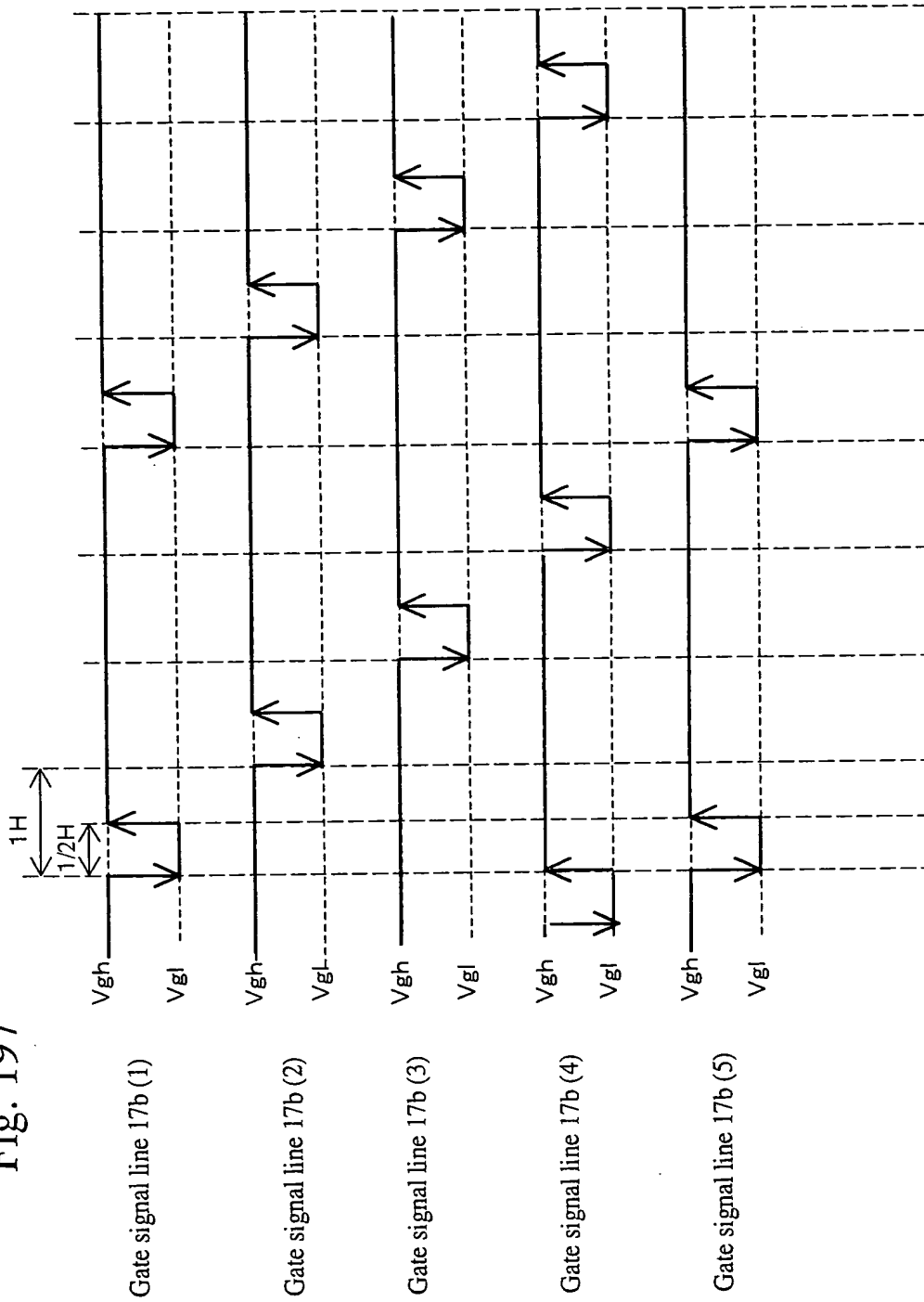
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Fig. 196



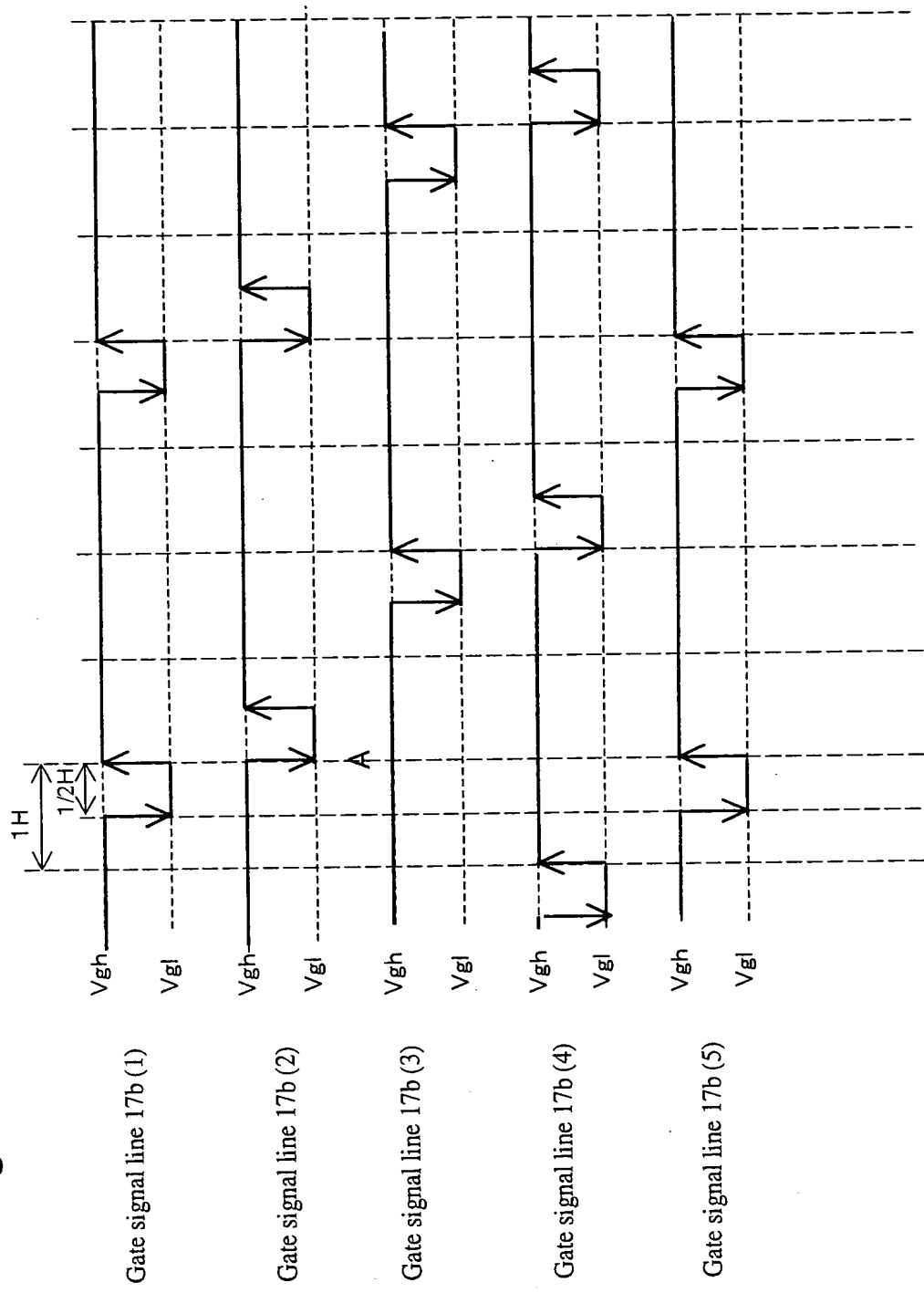
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Fig. 197



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Fig. 198



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Fig. 199 (a)

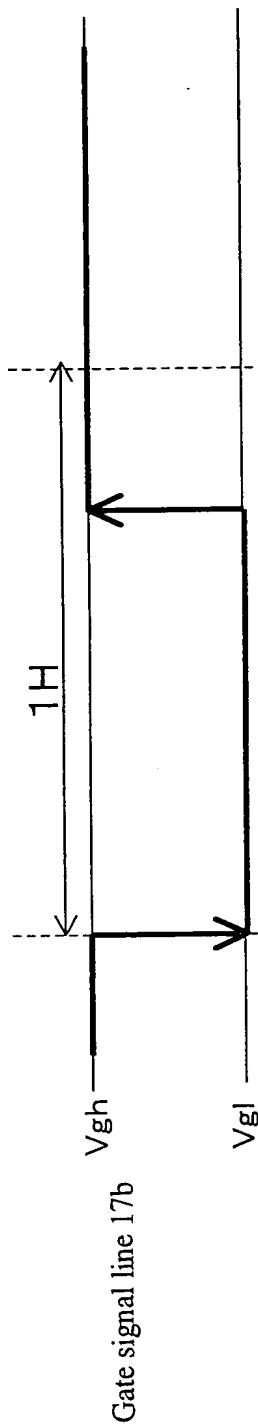


Fig. 199 (b)

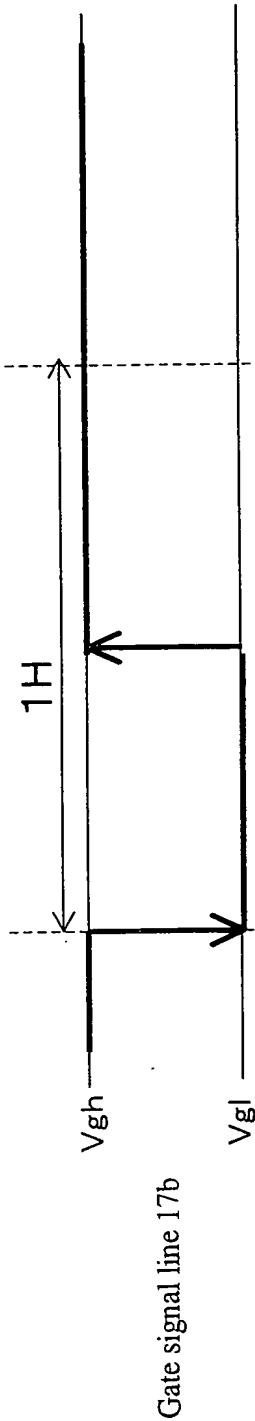
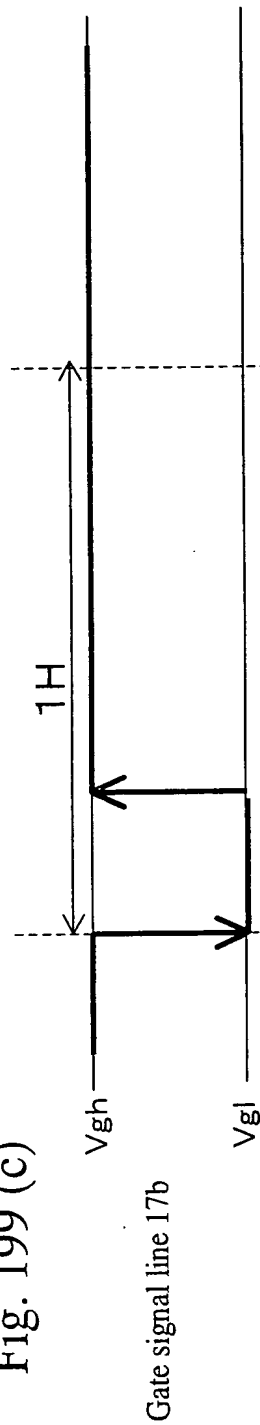


Fig. 199 (c)



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Fig. 200 (a)

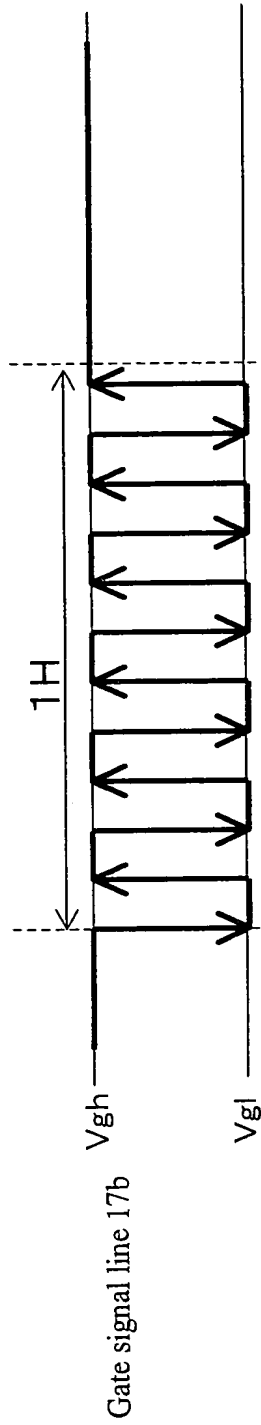


Fig. 200 (b)

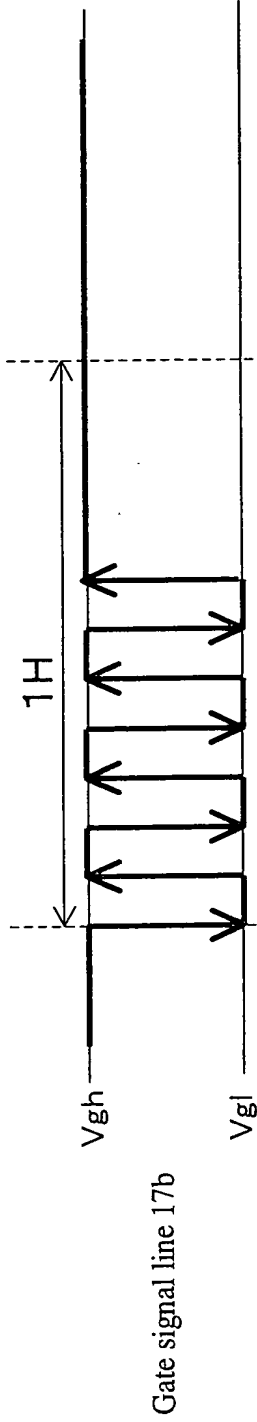
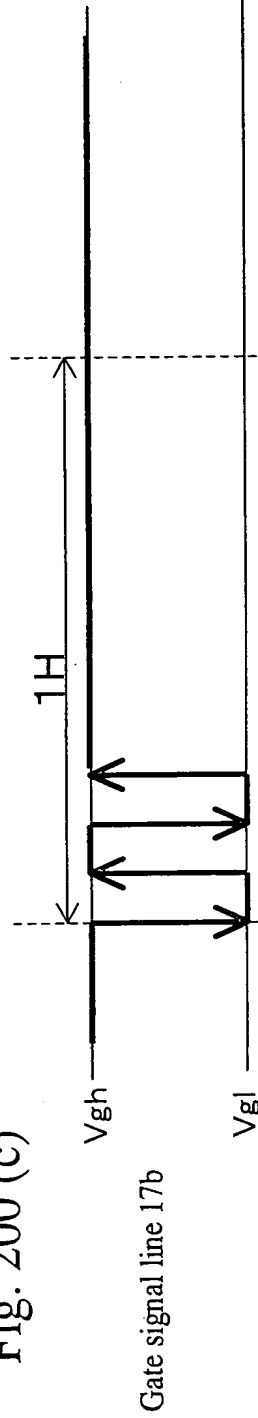
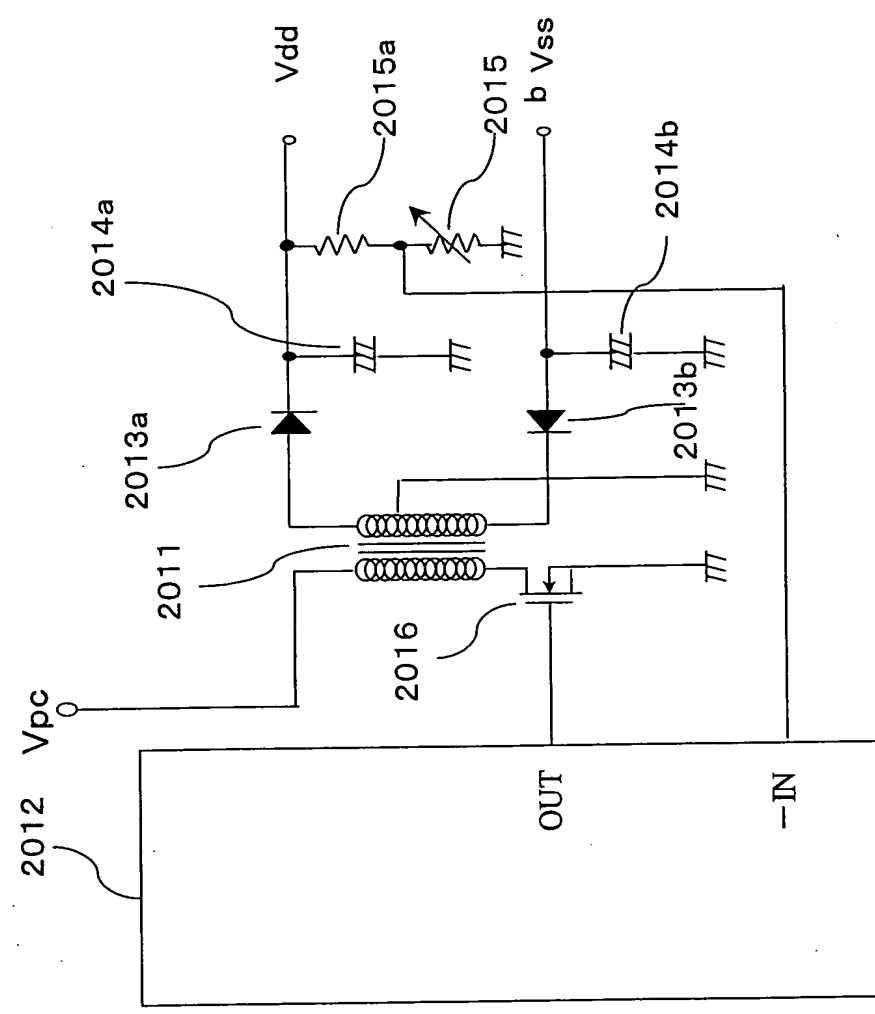


Fig. 200 (c)



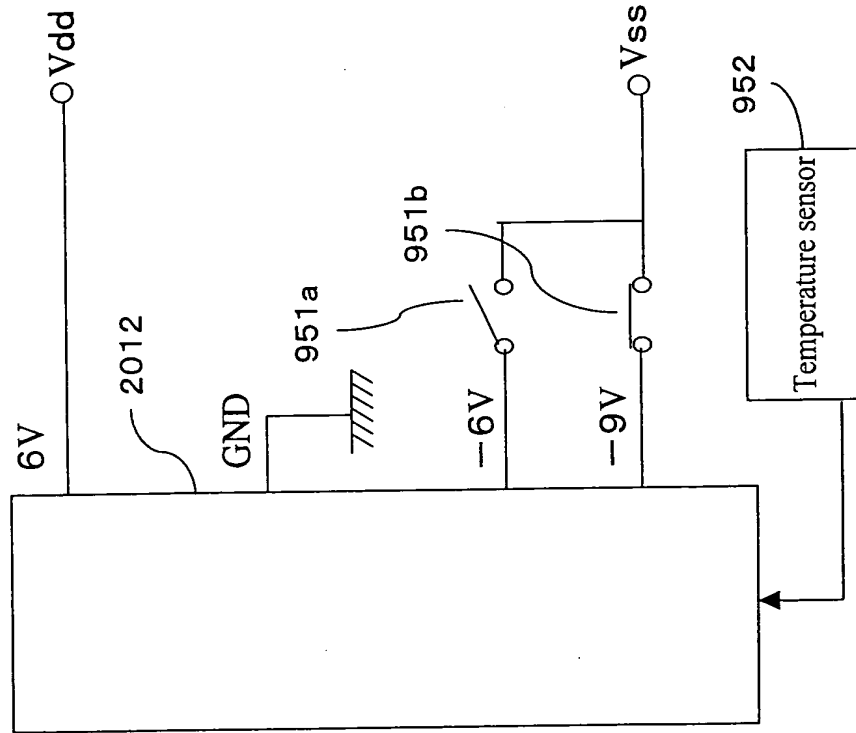
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Fig. 201



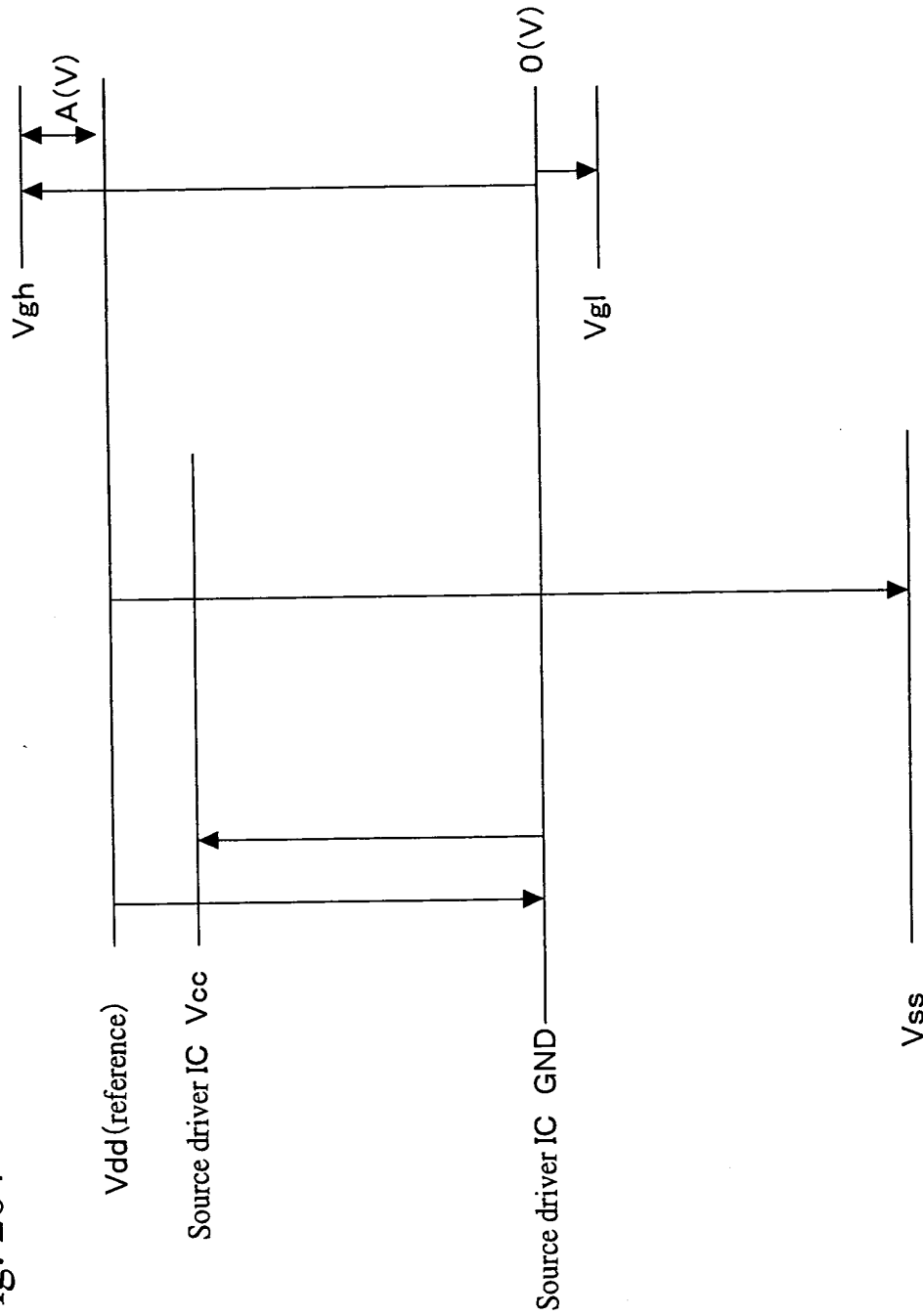
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Fig. 202



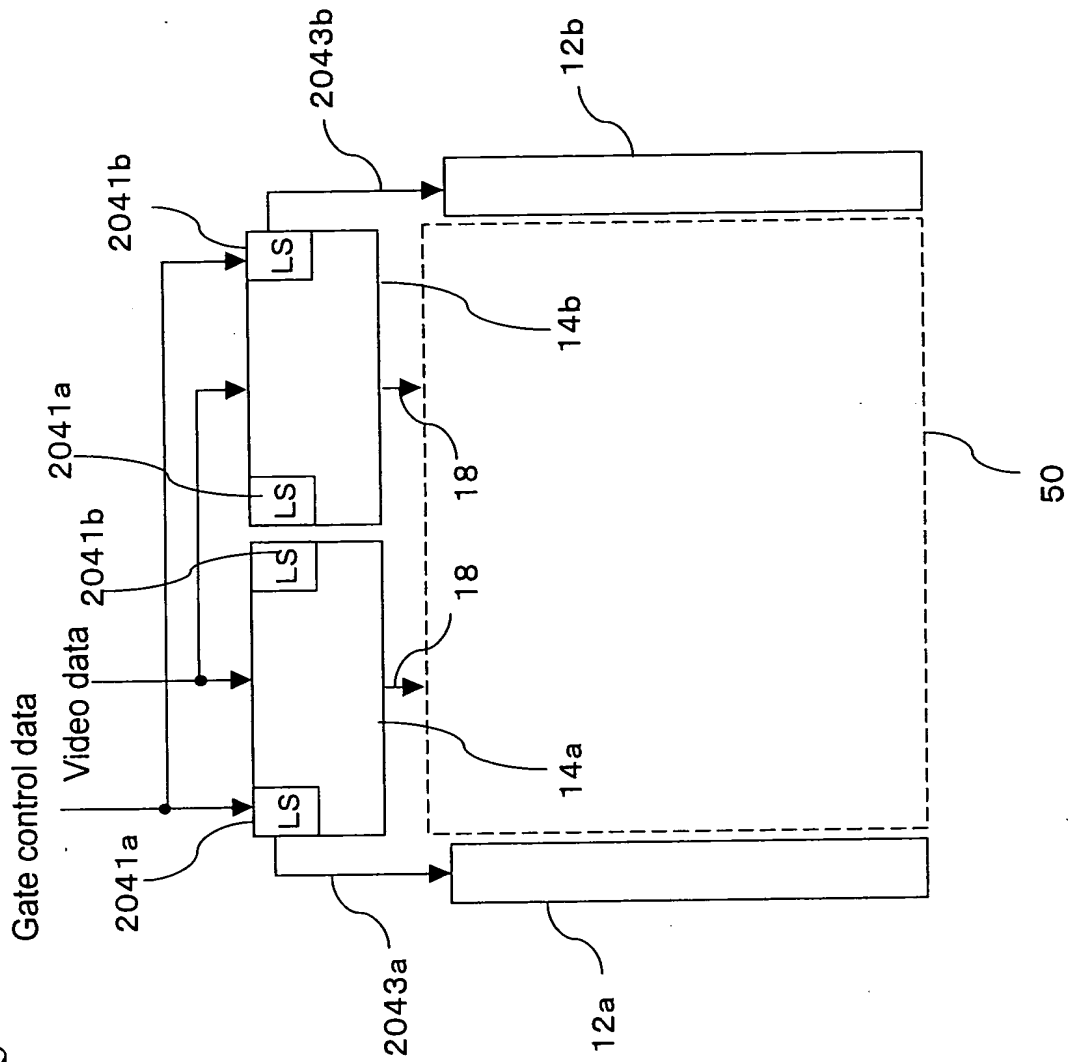
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Fig. 204



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Fig. 205



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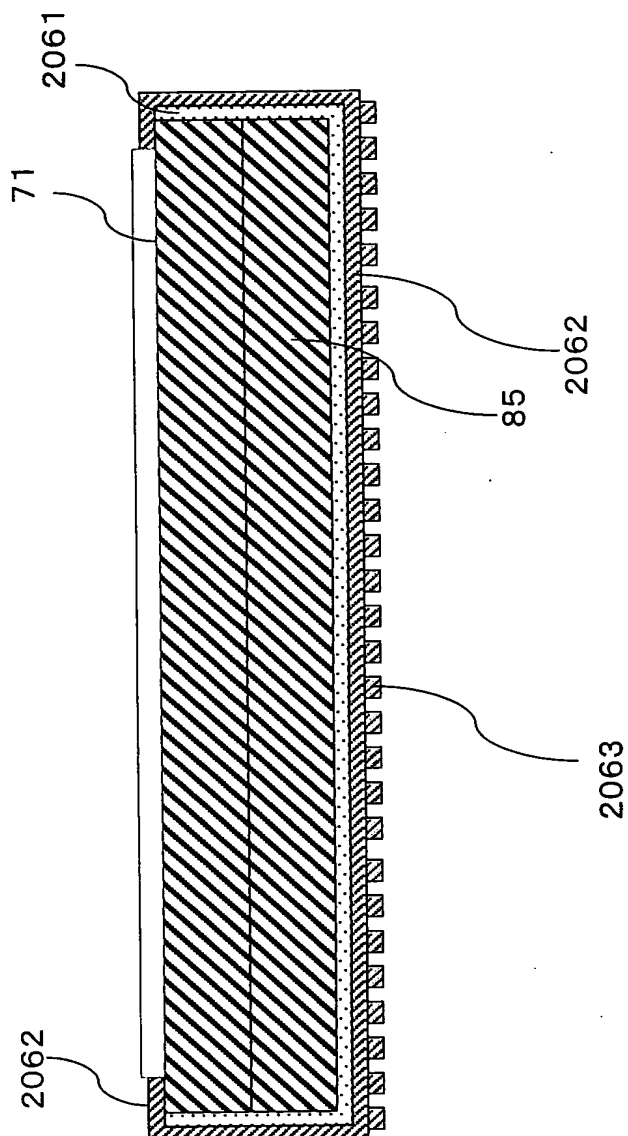


Fig. 206

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Fig. 207 (b)

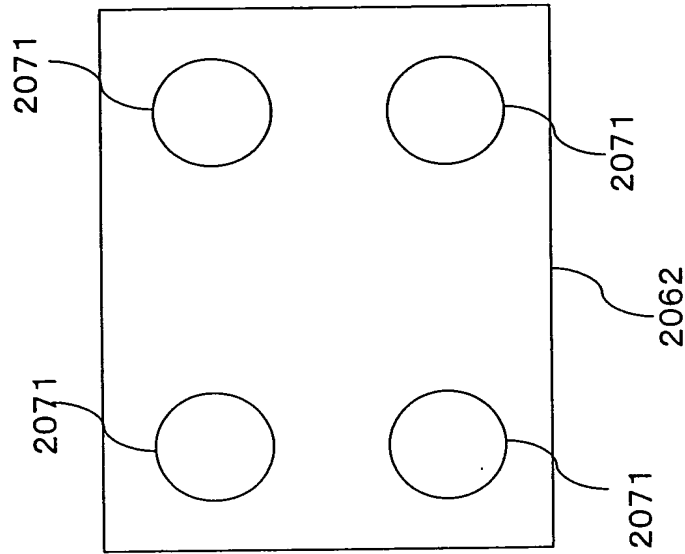
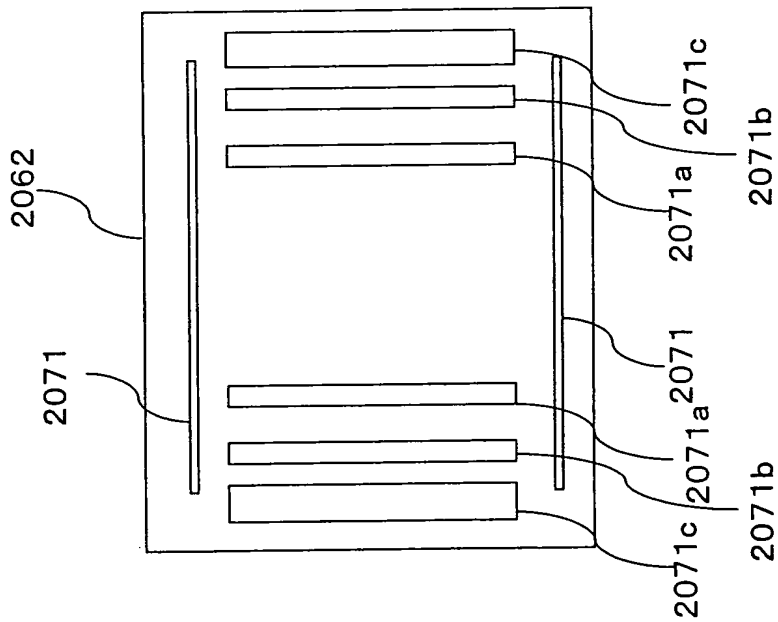


Fig. 207 (a)



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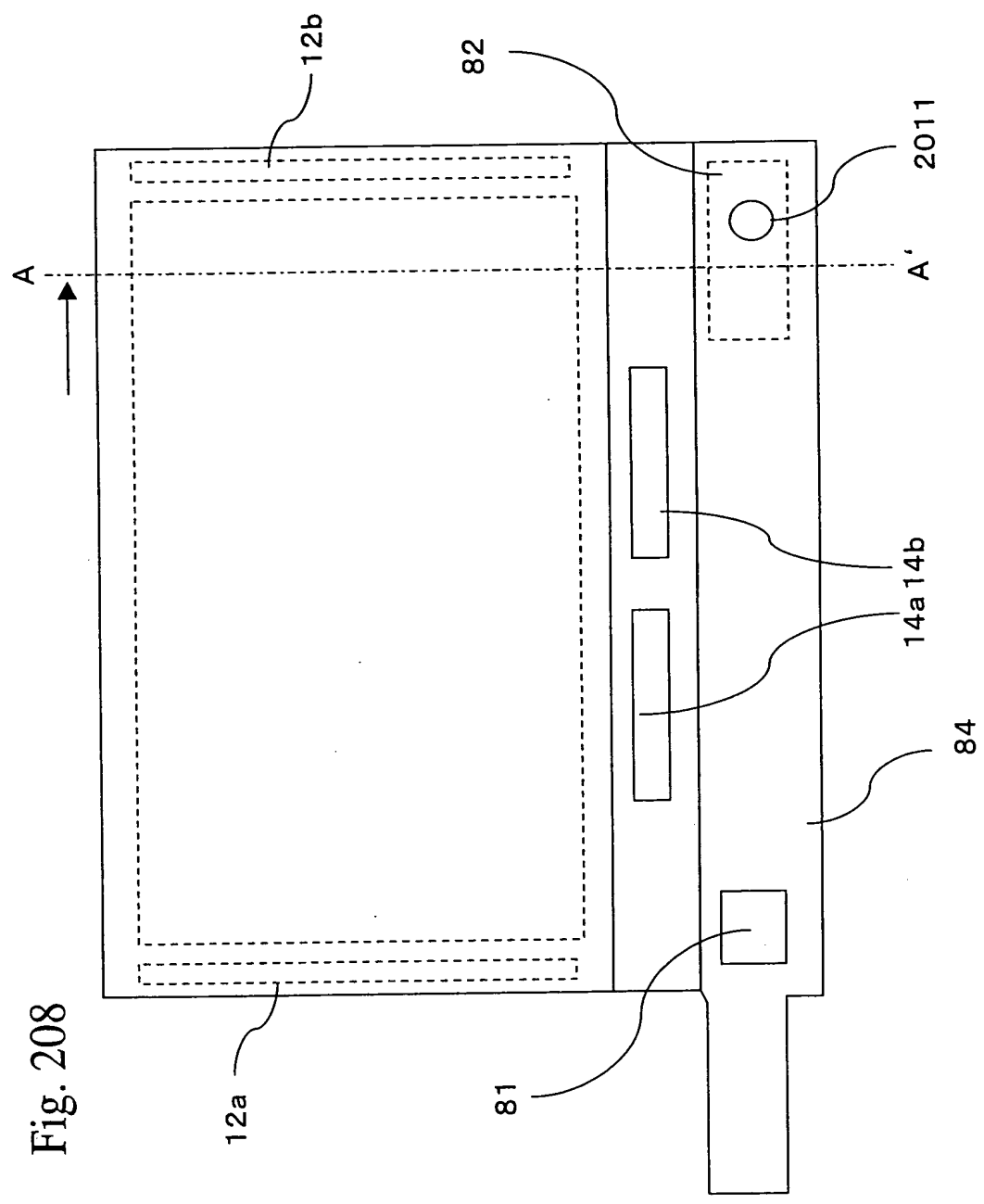


Fig. 208

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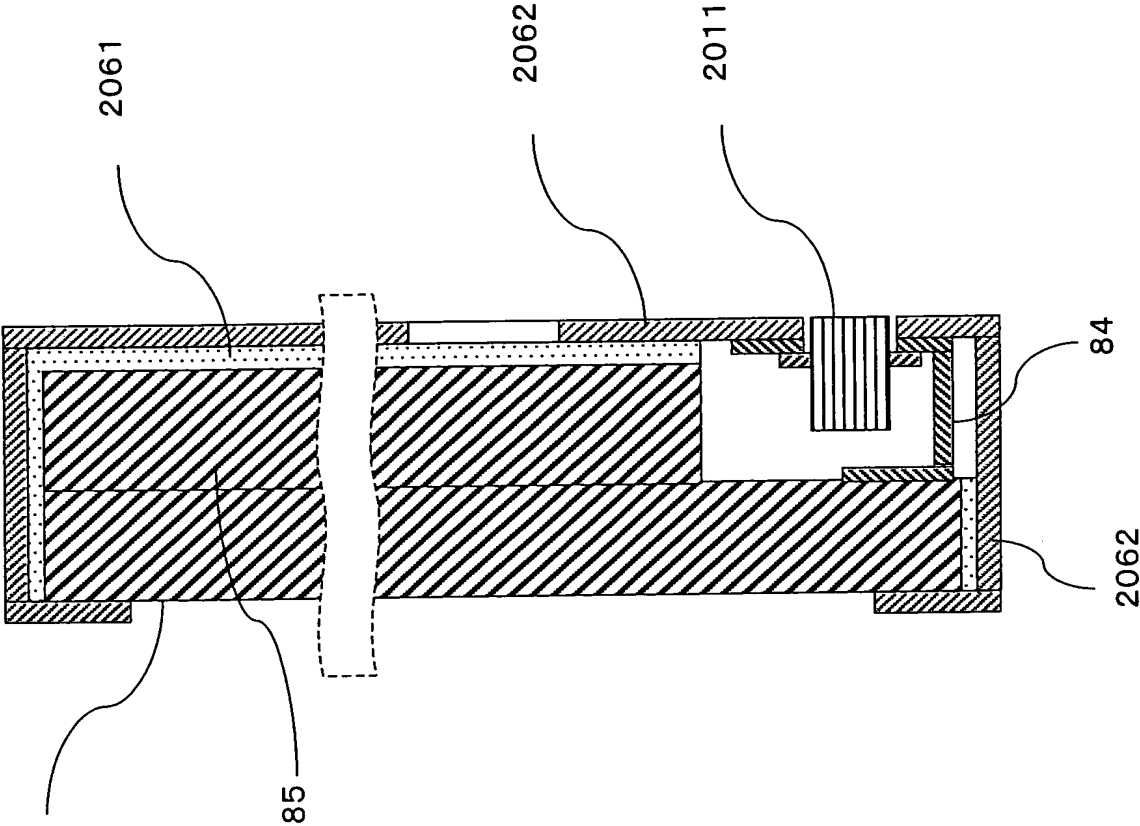
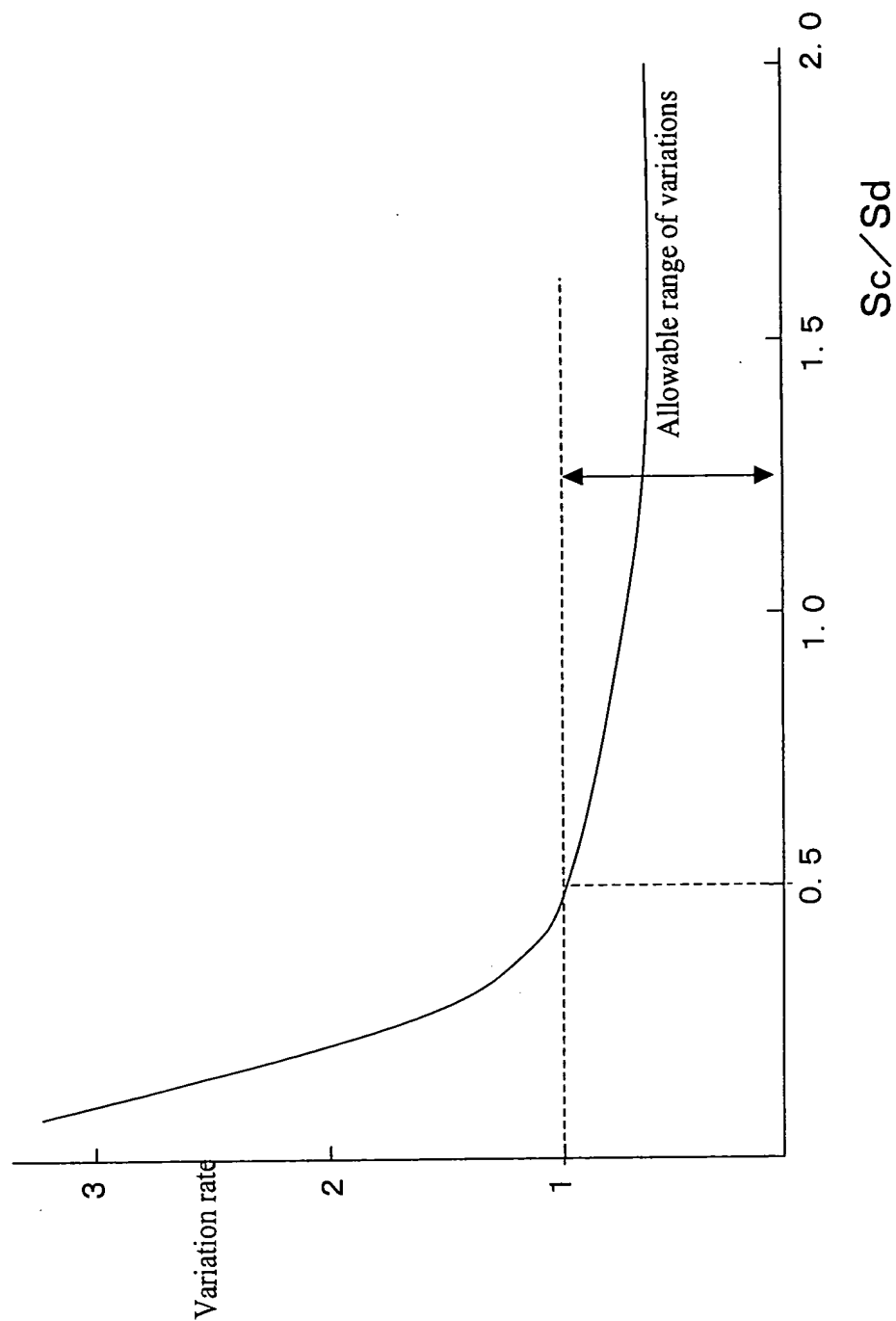


Fig. 209

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Fig. 210



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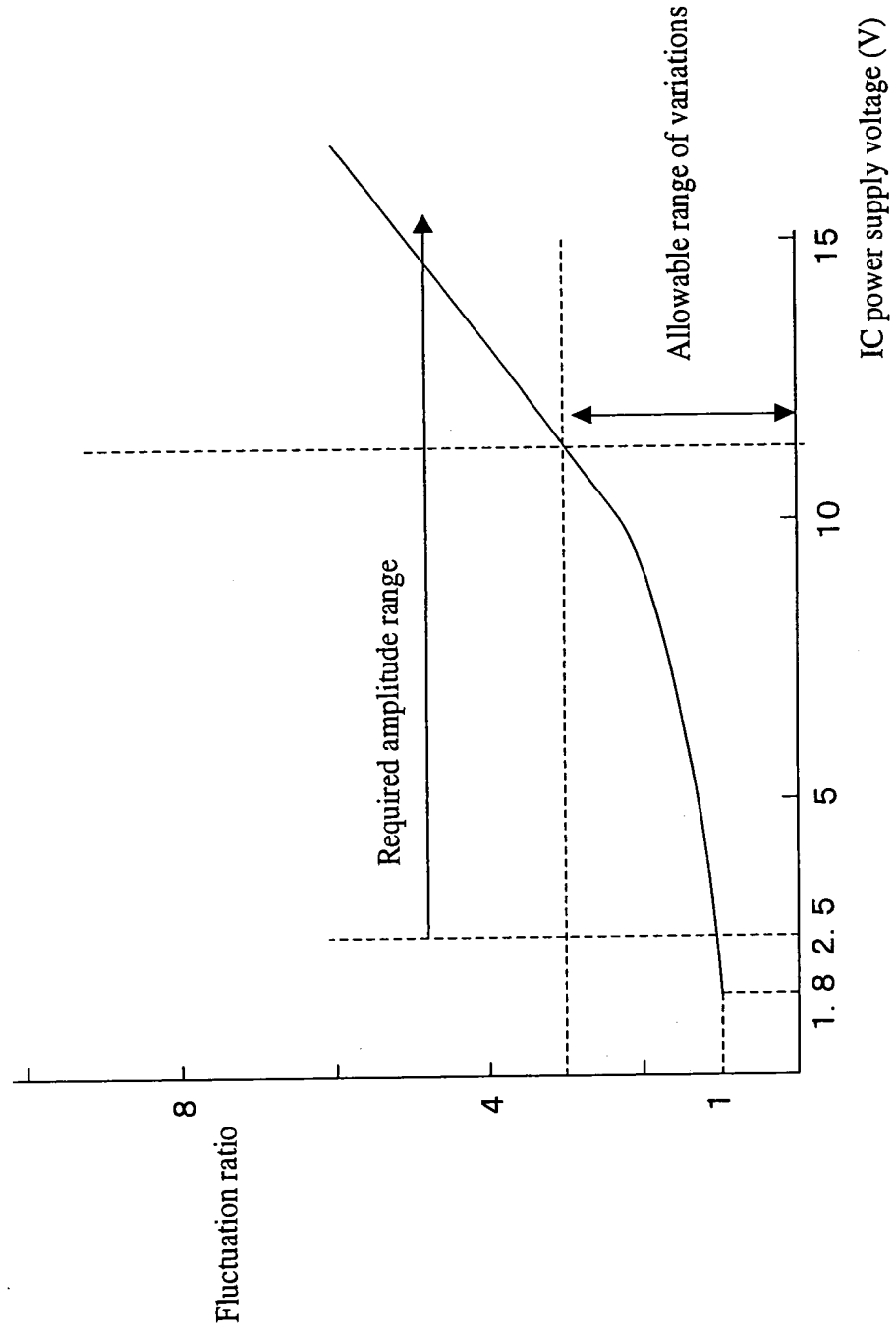
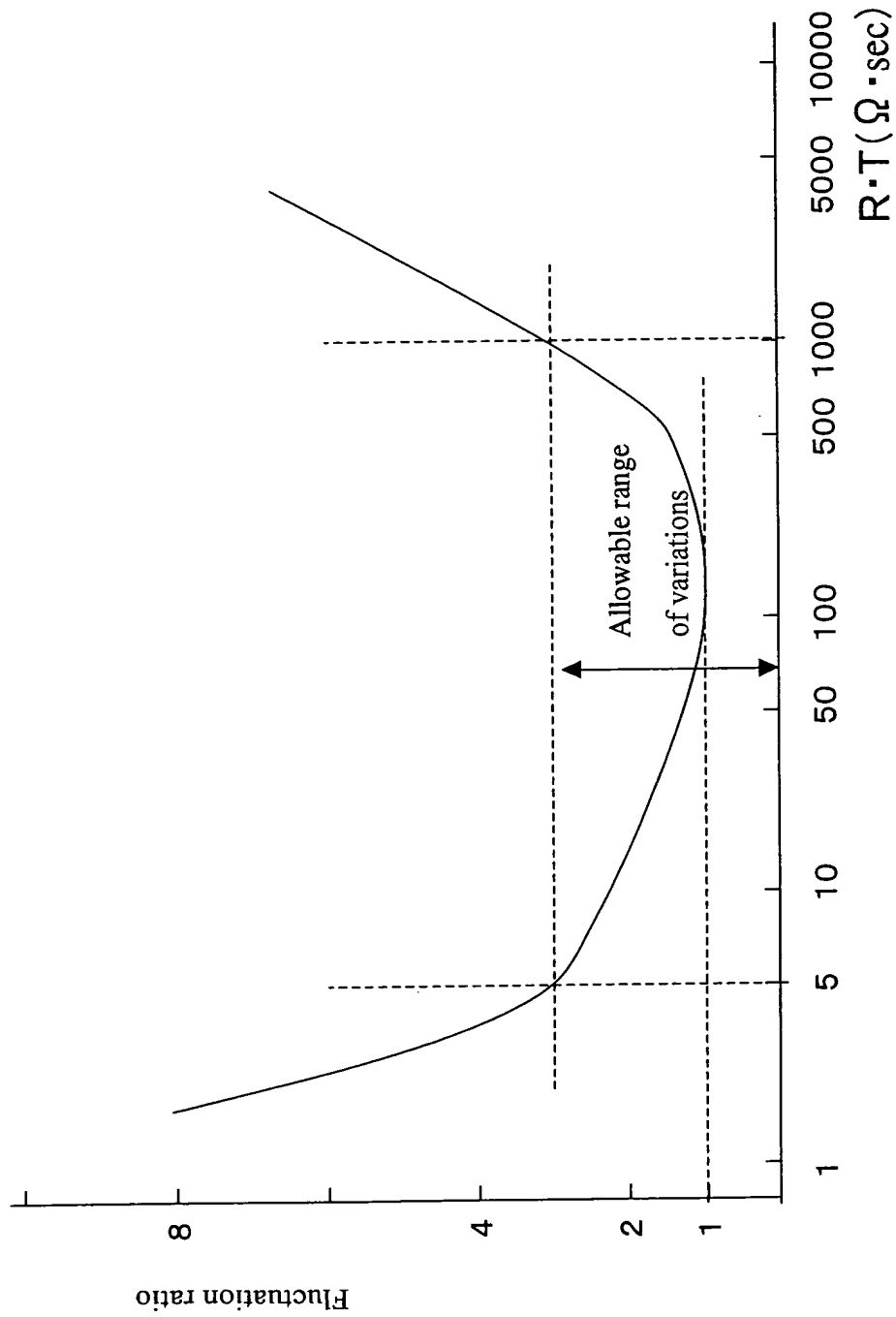


Fig. 211

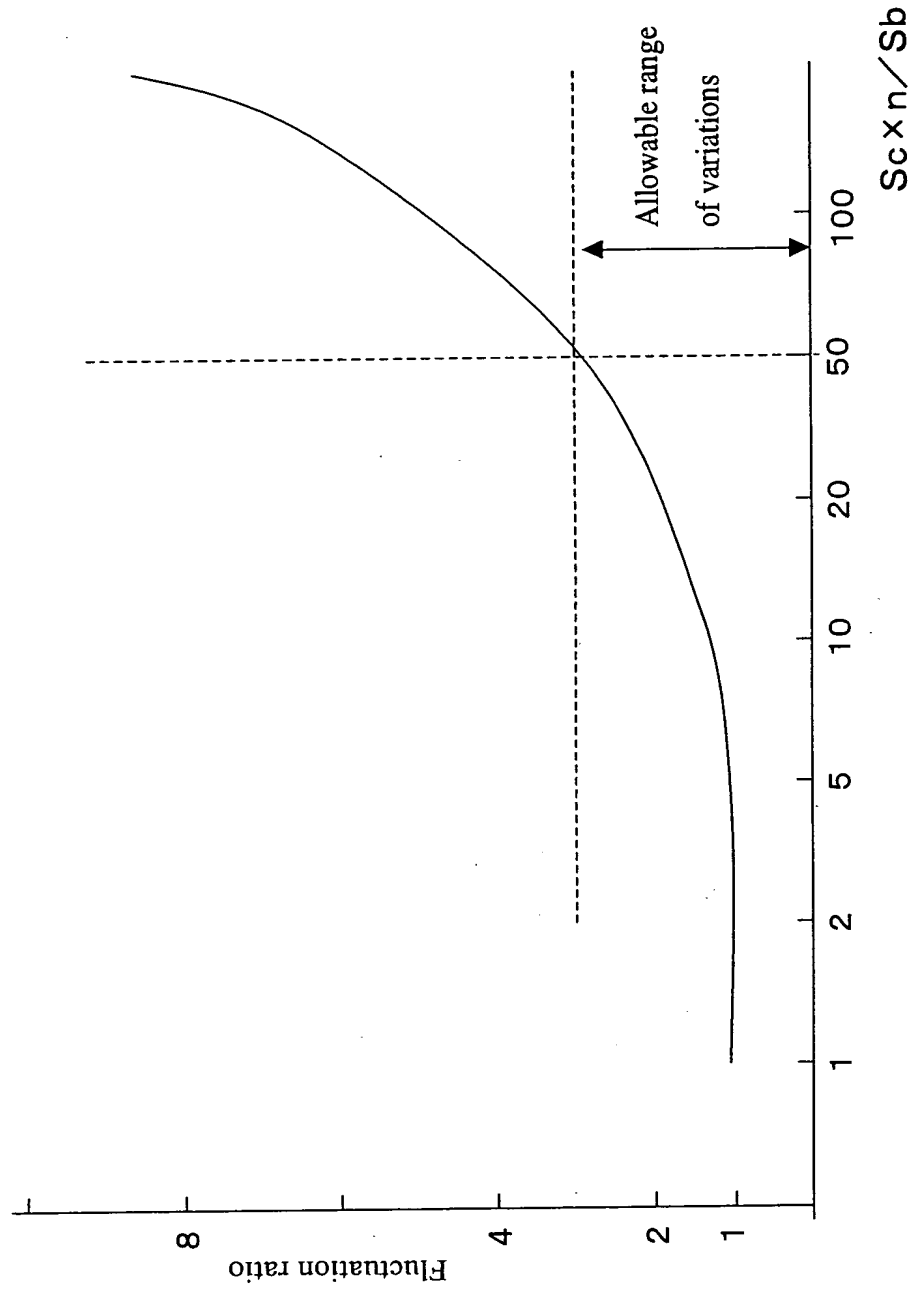
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Fig. 212



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Fig. 213



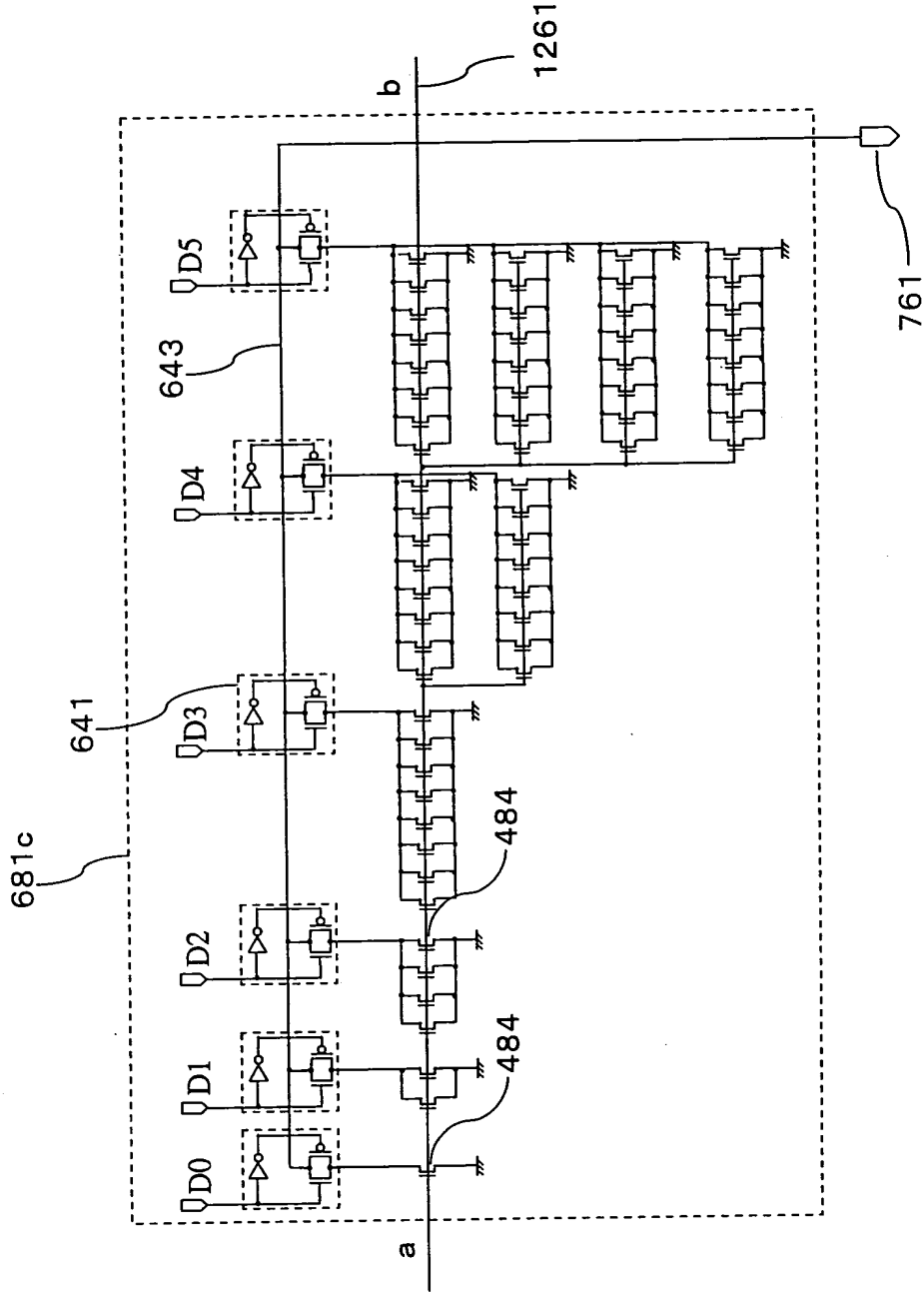
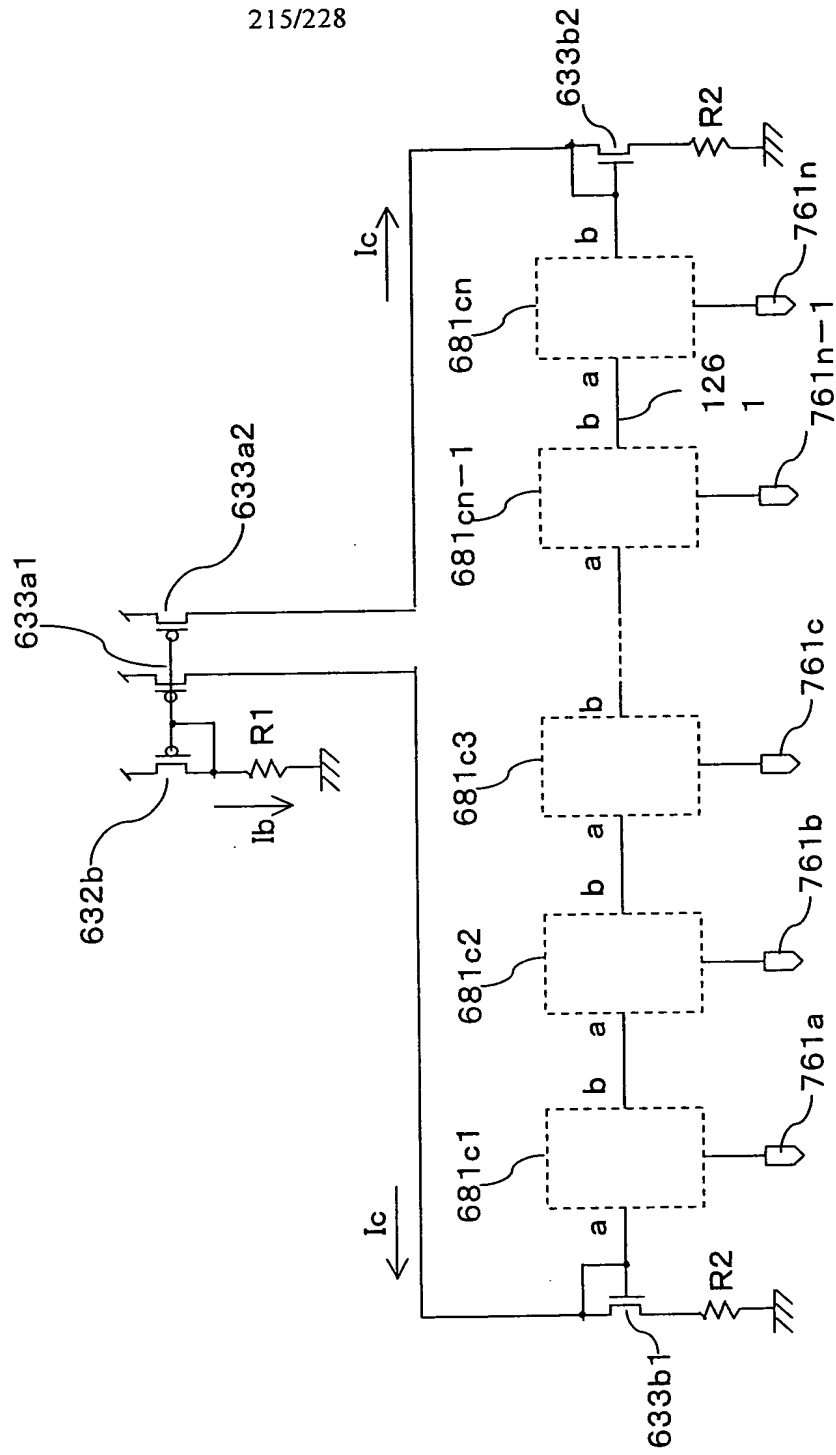


Fig. 214

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Fig. 215



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Fig. 216

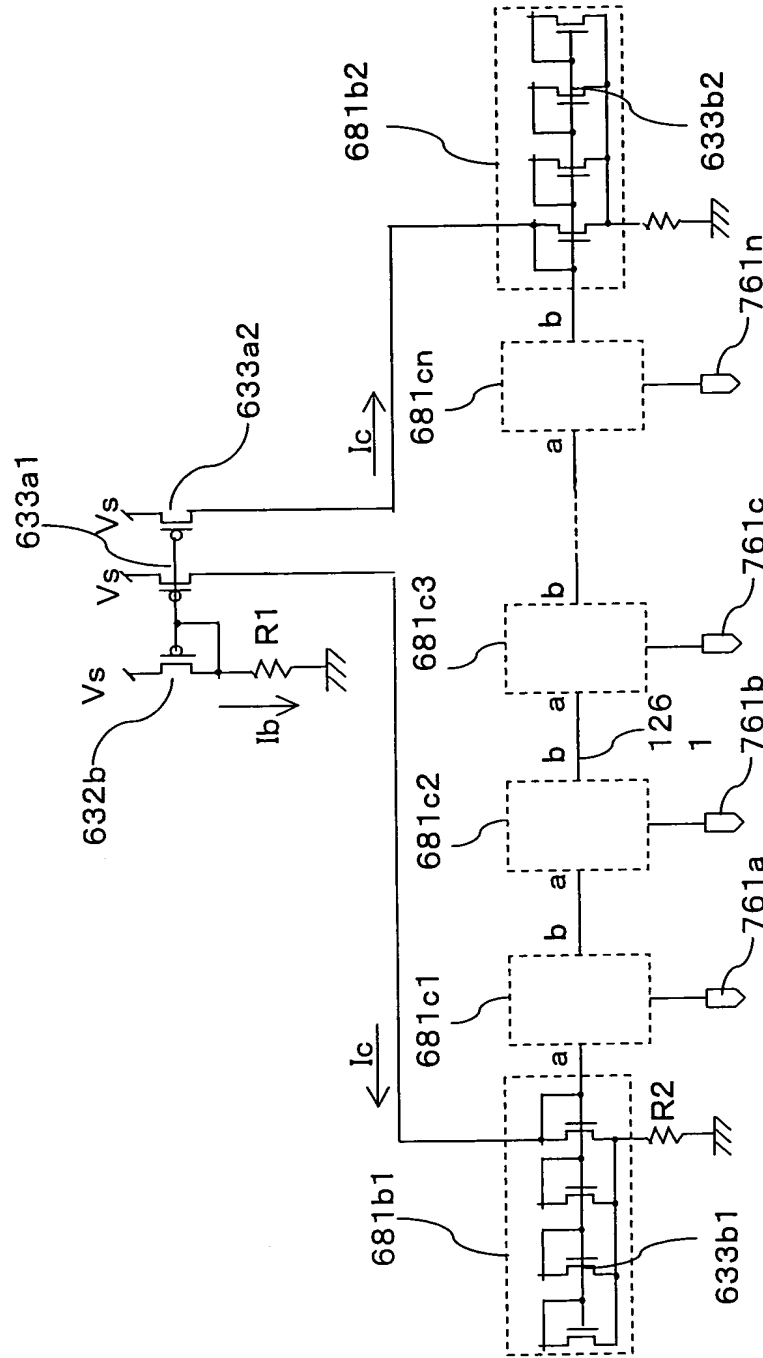
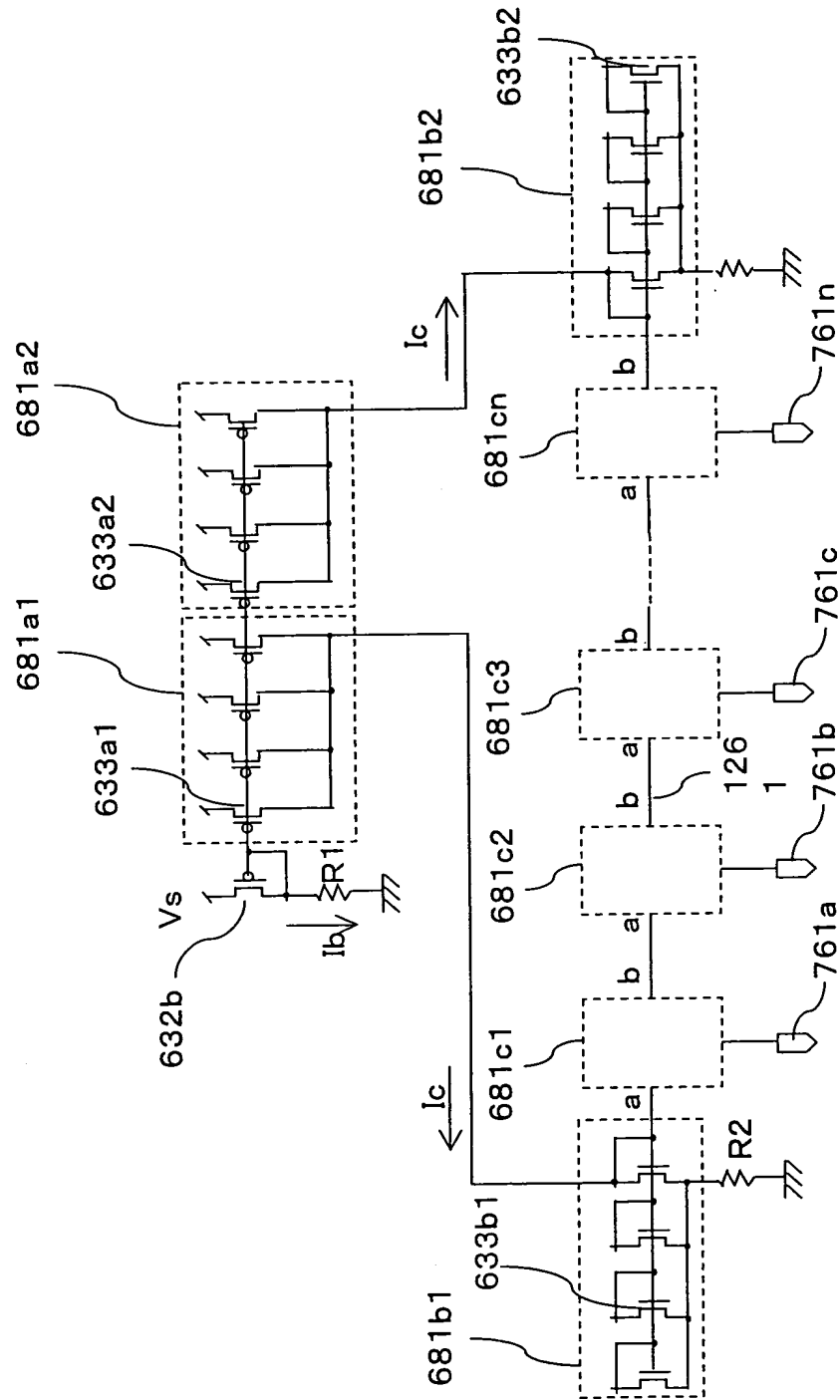


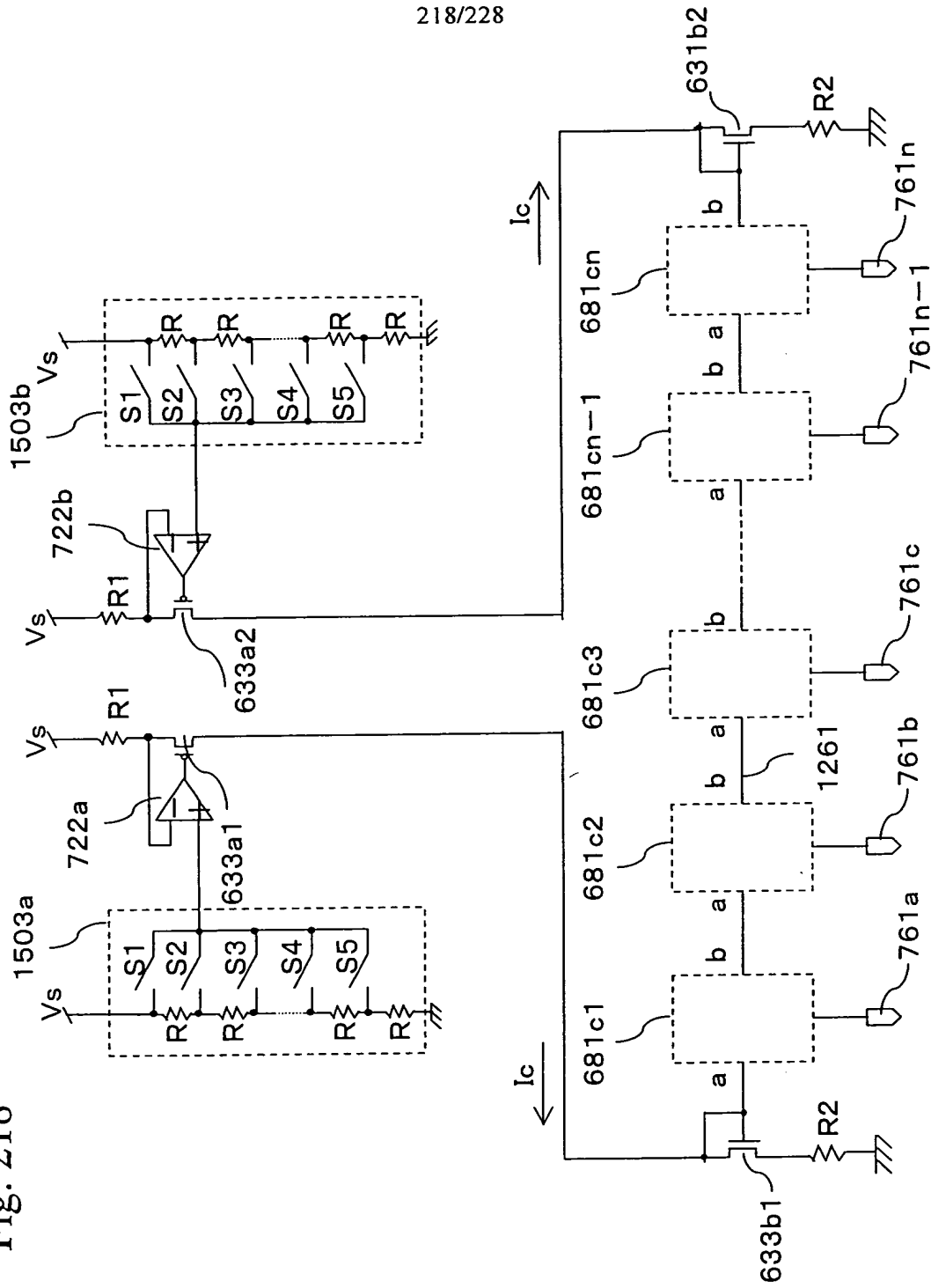
Fig. 217

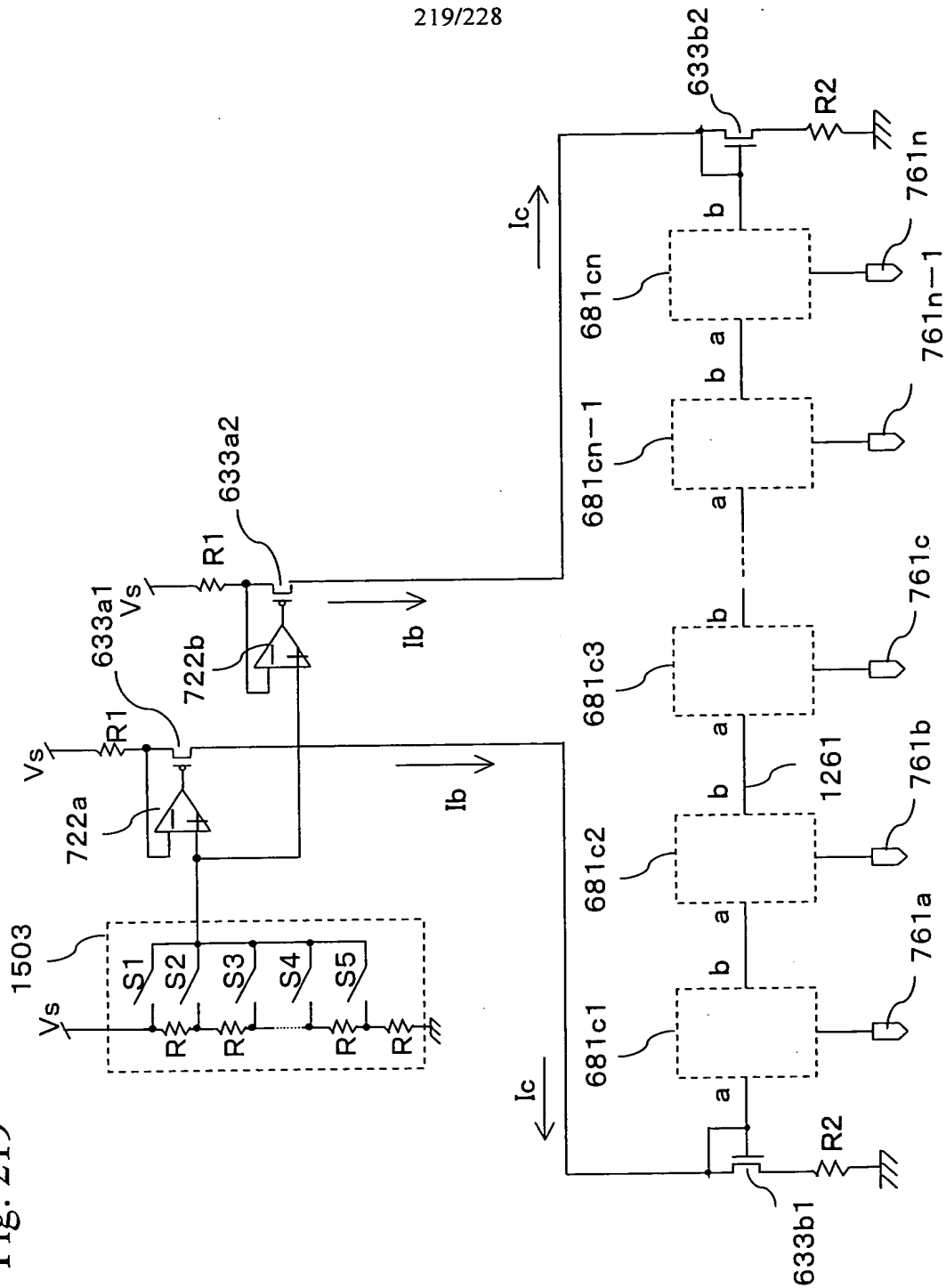


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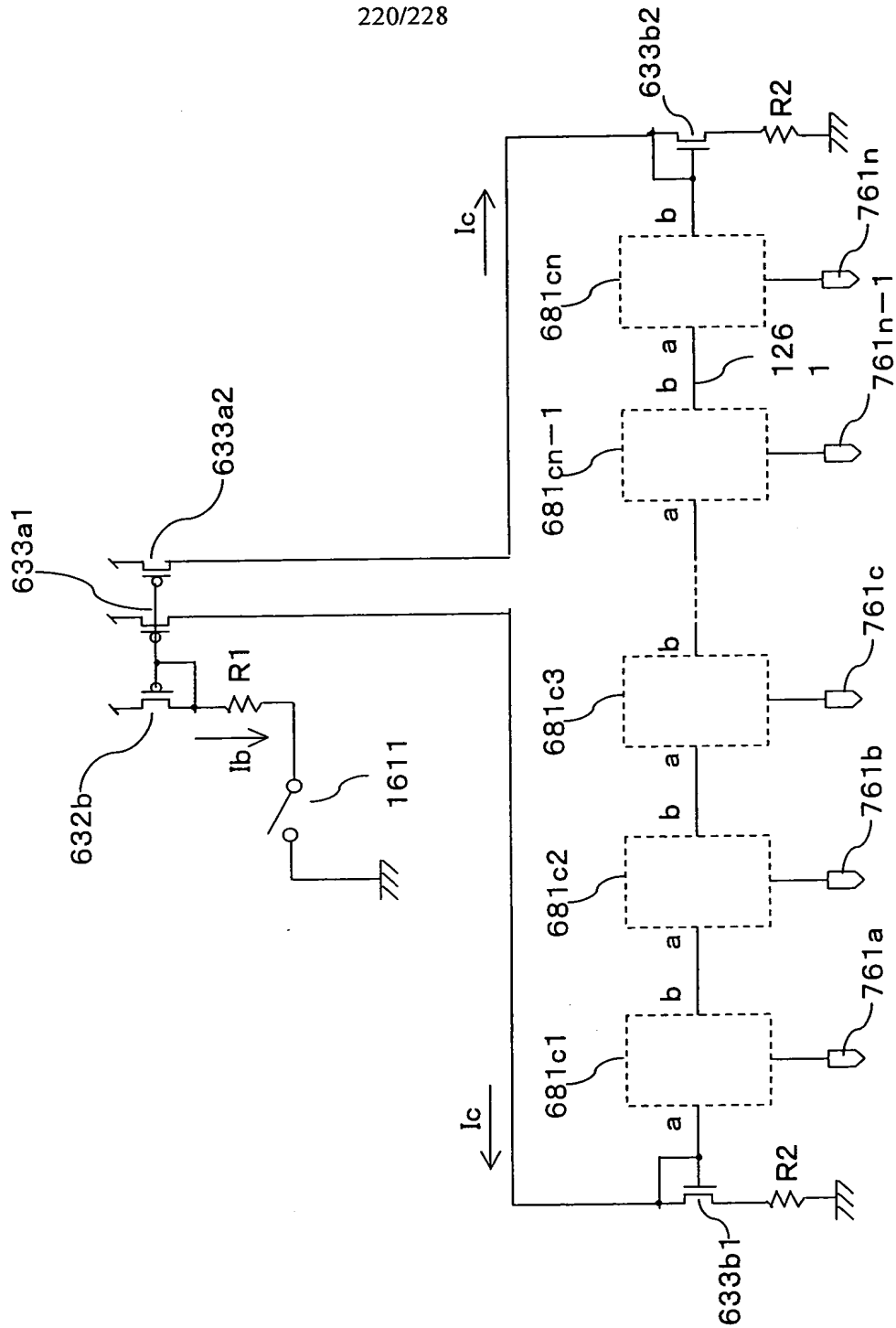
Fig. 218





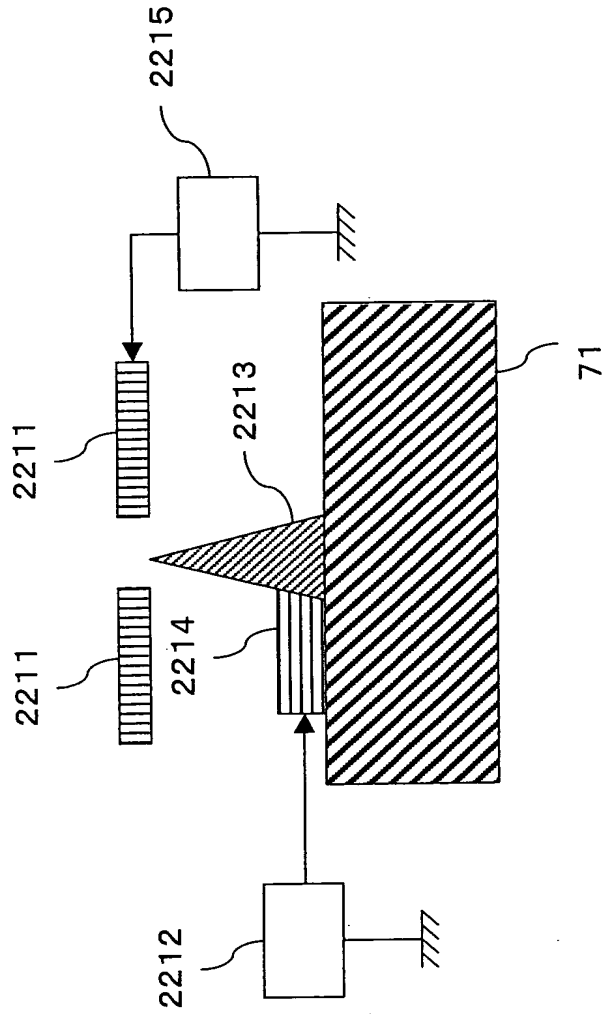
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Fig. 220



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Fig. 221



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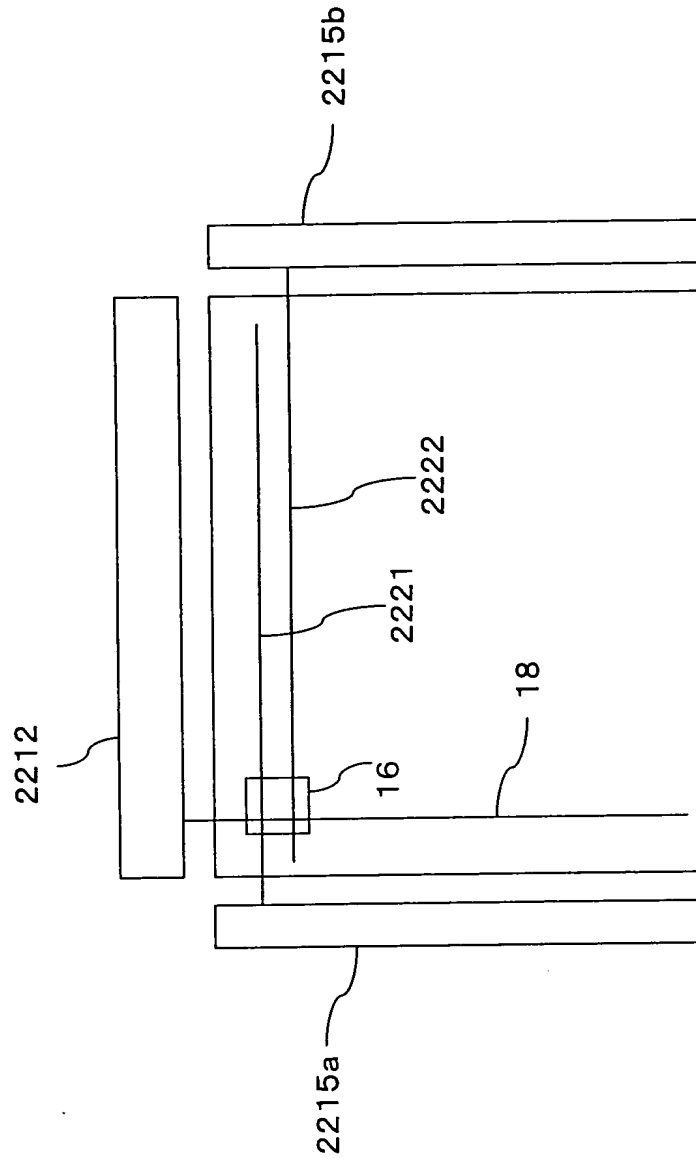


Fig. 222

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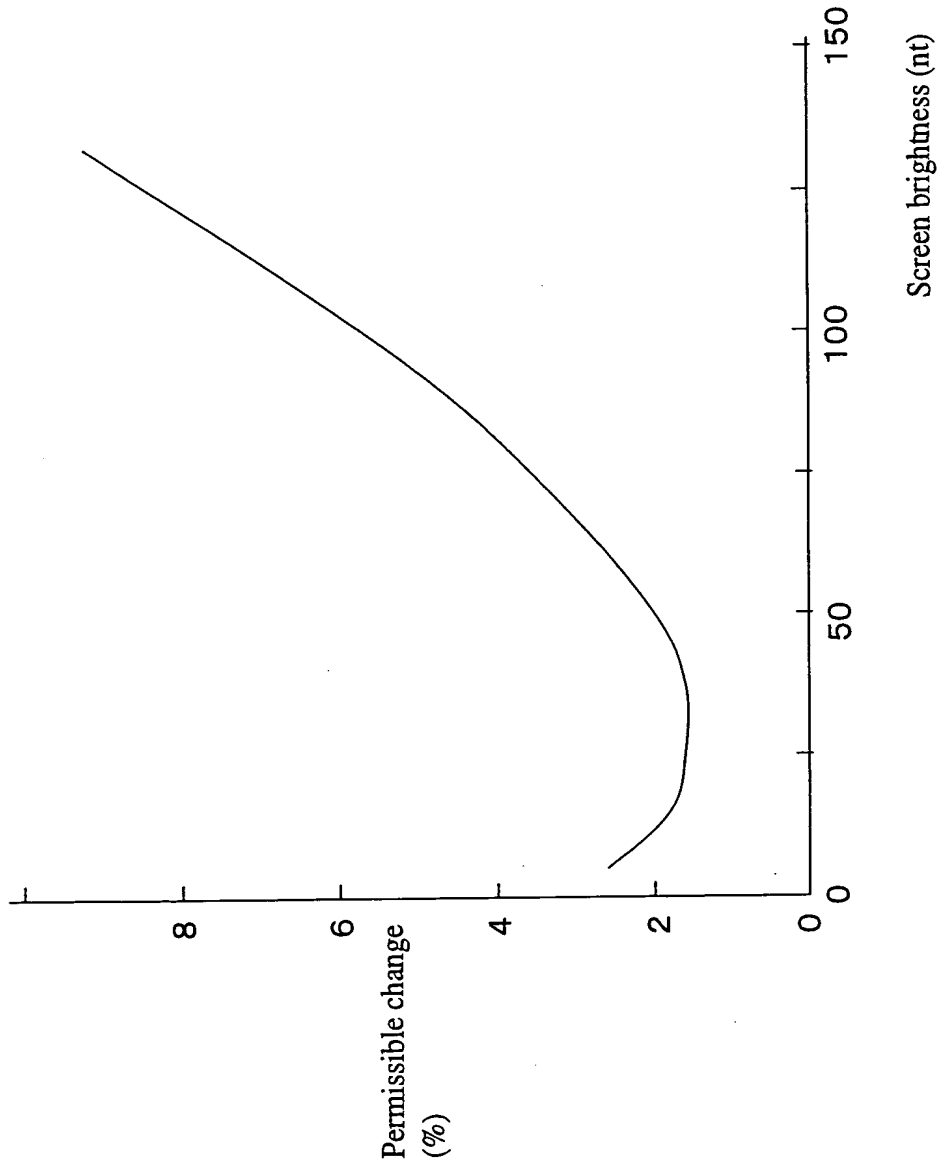


Fig. 223

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Fig. 224 (a)

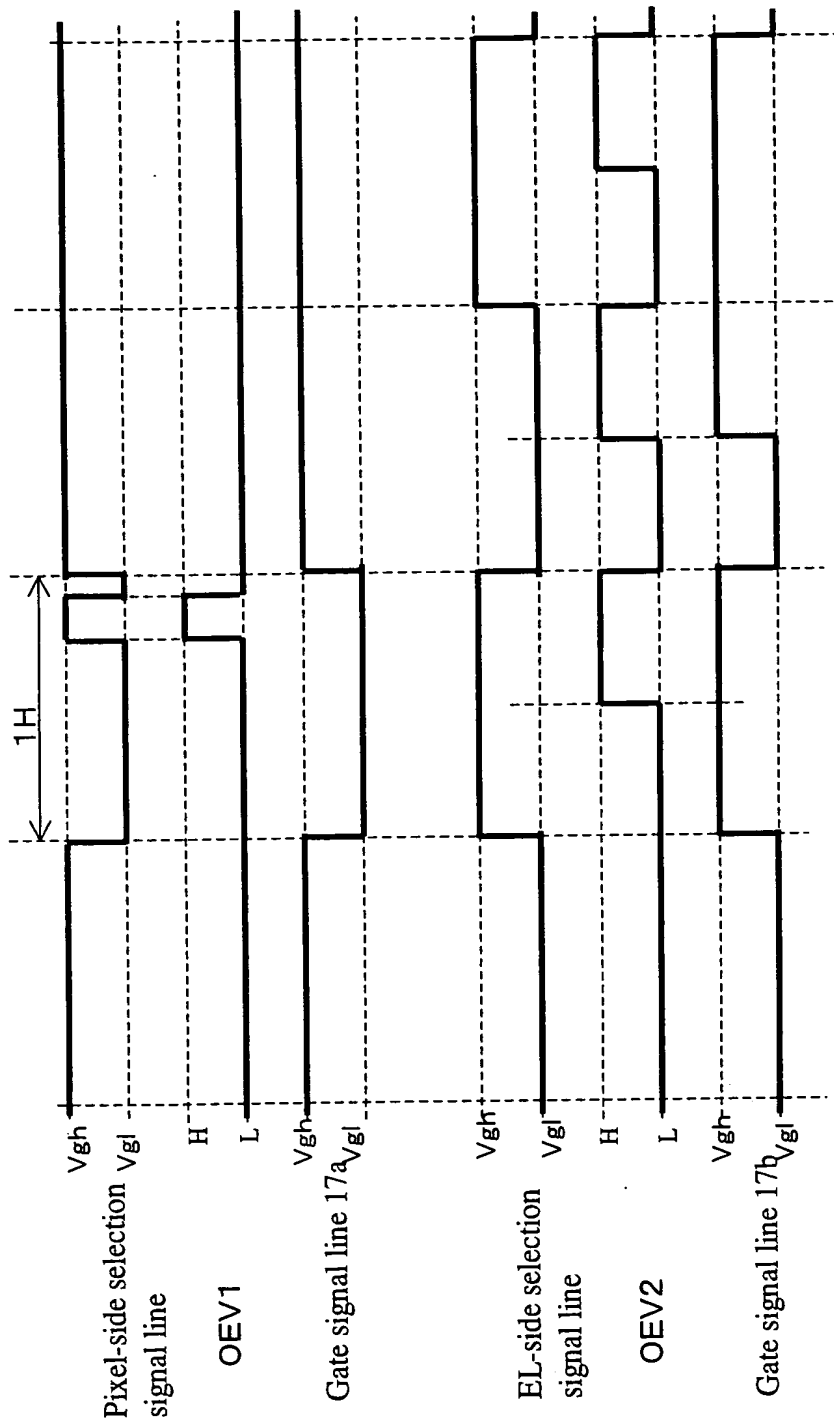
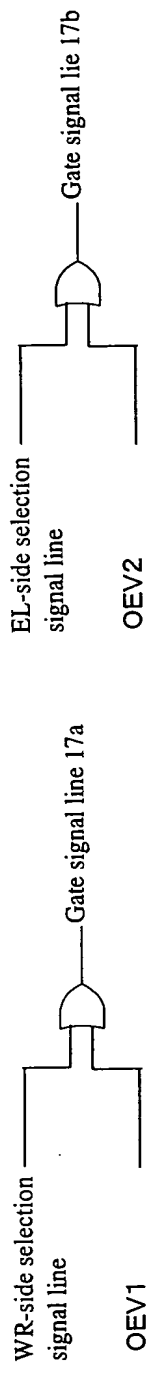


Fig. 224 (b)



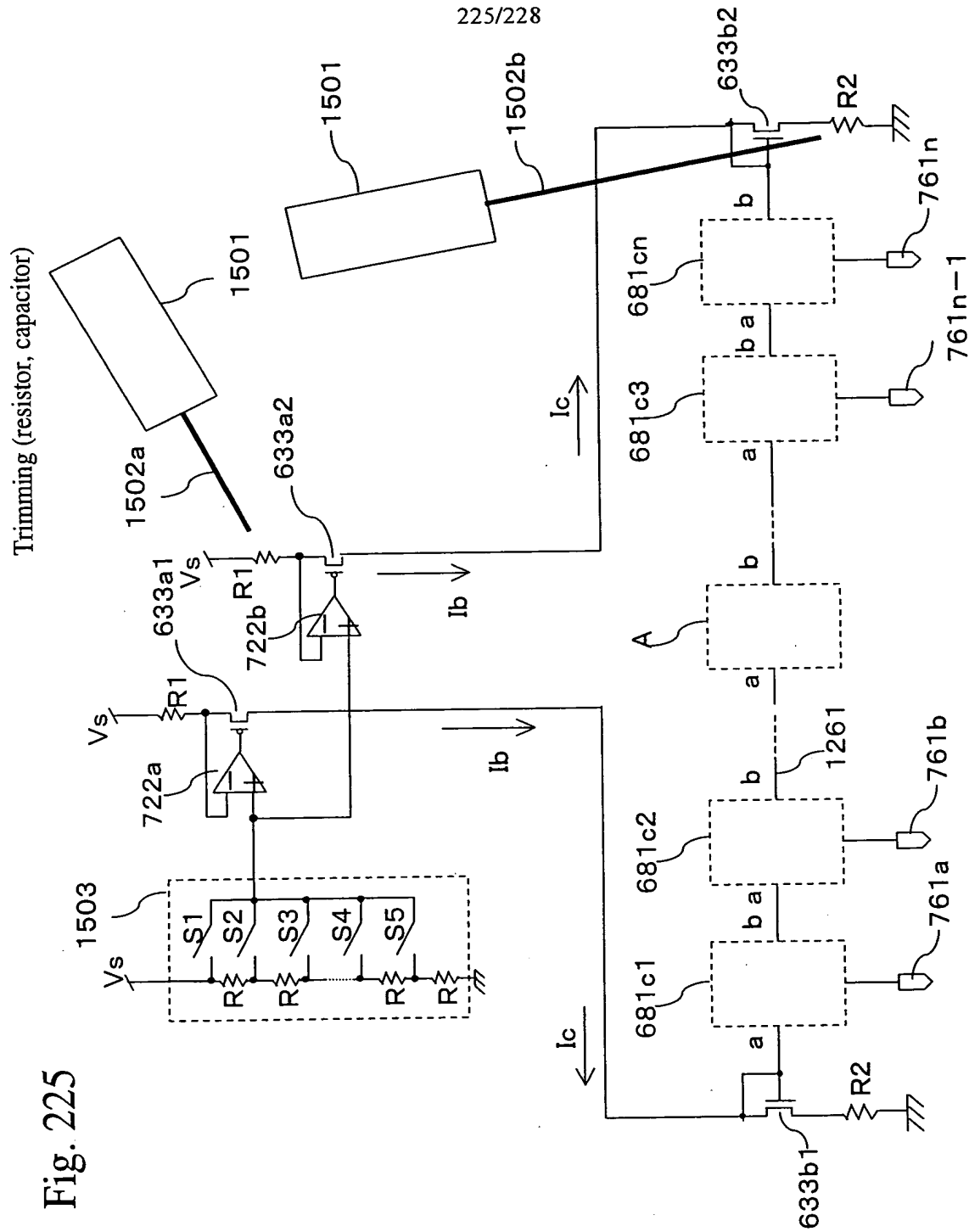


Fig. 225

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Fig. 226 (b)

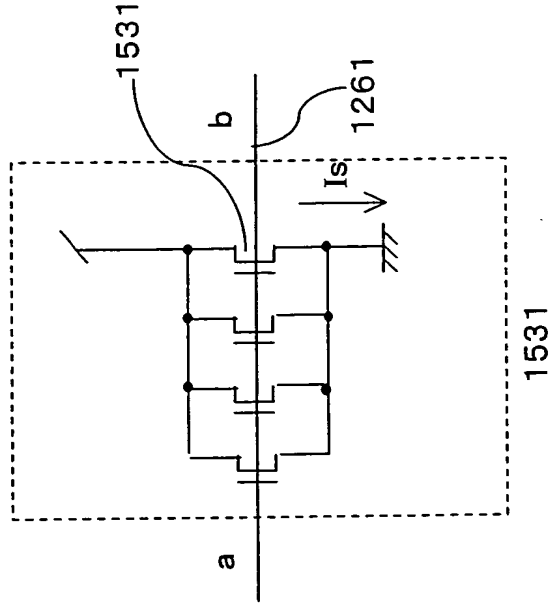
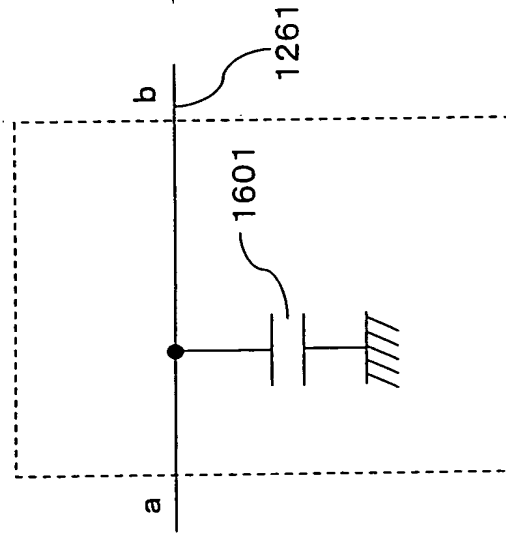
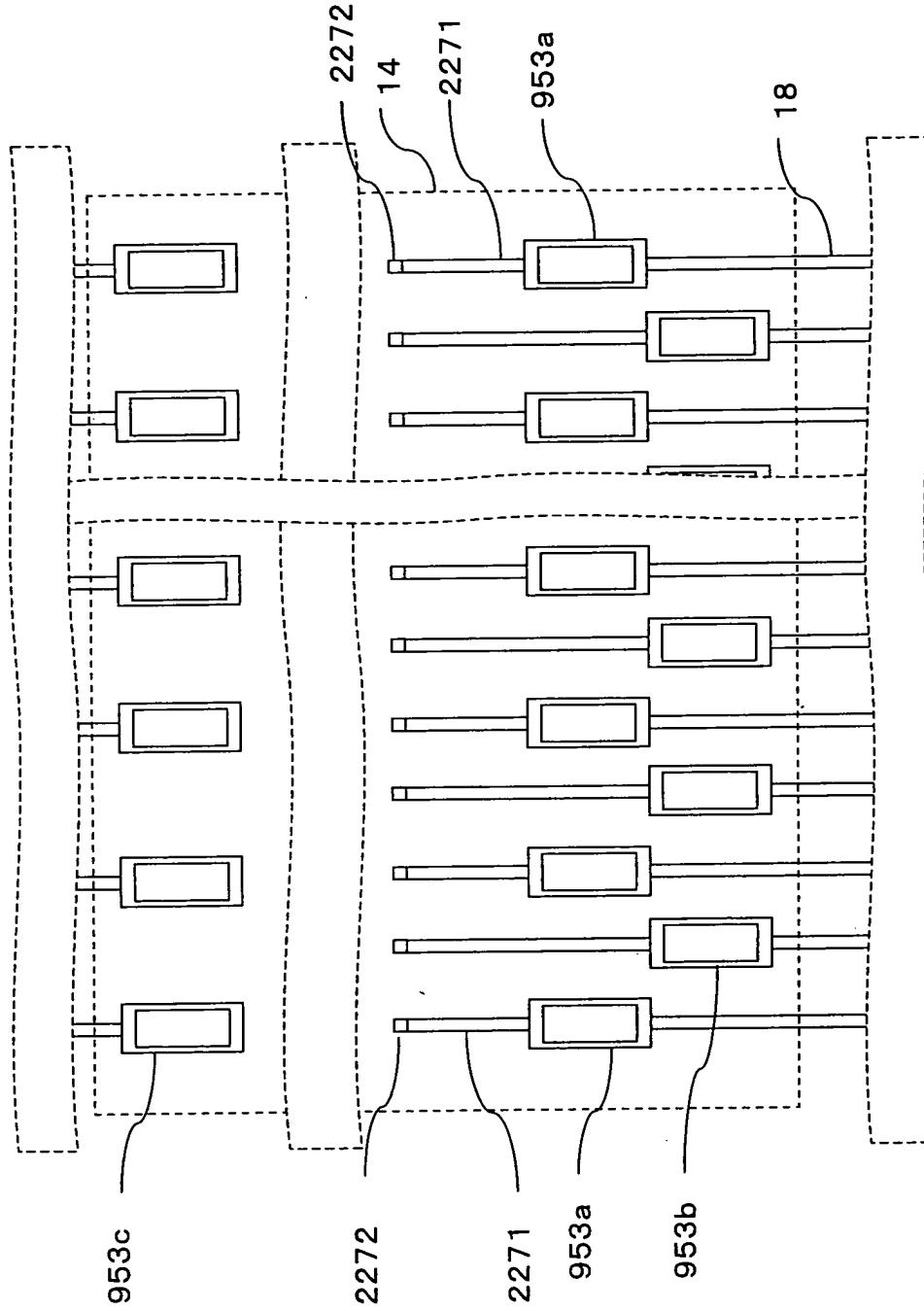


Fig. 226 (a)



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Fig. 227



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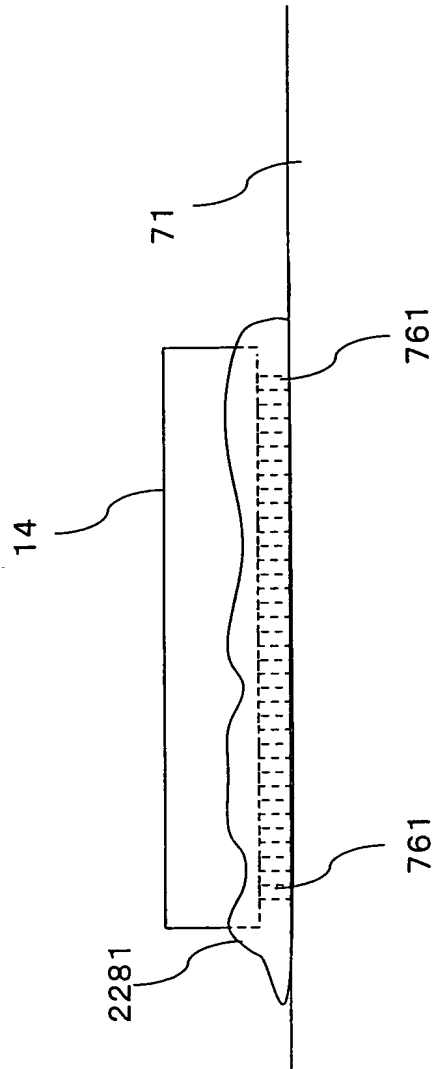


Fig. 228